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IDENTIFIERS	*Project CAPABLE

ABSTRACT

Project CAPABLE (Classroom Action Program: Aim: Basic Learning Effectiveness) is a classroom approach which integrates the basic learning skills with content. The goal of the project is to use basic learning skills to enhance the learning of content and at the same time use the content to teach basic learning skills. This manual presents program implementation and evaluation methods. It also provides teachers with methods for planning, developing, and implementing the Classroom Action Program and directed learning activities. Teachers are encouraged to gradually add program components, or "pearls," to their classes. Eighteen pearls involving teacher preparation are presented. Comments about Project CAPABLE from participating students and teachers and results of a formal student survey are given. Descriptions and objectives for 27 Project CAPABLE teacher workshops are presented. A reading list of useful resources is included. (BS)

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PROJECT CAPABLE

IMPLEMENTATION MANUAL

PROJECT

CLASSROOM
ACTION
PROGRAM:
AIM:
BASIC
LEARNING
EFFECTIVENESS

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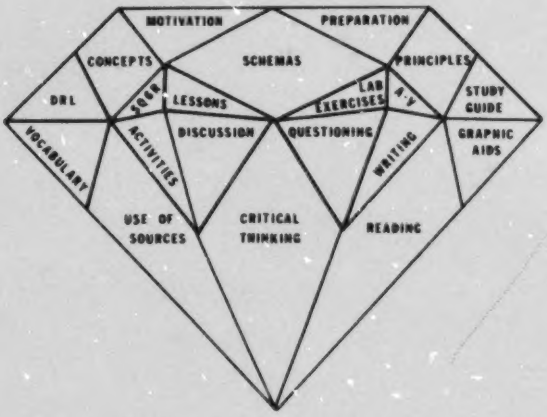
"To Help Each Student Become a More Capable Learner"

Madawaska High School
Madawaska, Maine
ESEA Title IV-C

TM 840 705

A GEM OF AN IDEA



THE MANY FACETS OF A LEARNING STRATEGY

PROJECT CAPABLE has been funded under the Elementary and Secondary Education Act (ESEA) Title IV-C, Public Law 93-380. Seed money provided by this public law enables school districts to develop ideas for solving educational problems, to apply and to refine these ideas, to determine their feasibility, to establish working models, and to demonstrate the adaptation or adoption of these models by other school systems.

Pre-Project: A workshop was conducted with the faculty members of Madawaska High School. The staff was asked to identify those skills which students lacked that hindered their ability to learn their subject matter. As a result of this workshop, Project Capable was conceived. A project team composed of teachers from several content areas was selected.

Year One: During the first year of the project, teachers were involved with intensive research to determine what the basic learning skills are and how they are learned. This research was accomplished through professional literature and workshops presented by several knowledgeable experts in the field.

Year Two: The second year was spent in writing learning units which systematically integrated basic learning skills with content.

Year Three: The final year of the project was used to implement these learning units in the classroom, to evaluate, and to revise them. Additional units were also written.

Future: Participating teachers will continue to develop the project in their classrooms. Since several departments are represented, these teachers will serve as a nucleus within the school to assist other teachers. The project can serve as a model probram for other schools that would be interested in adopting it.

A PROJECT DEVELOPED BY TEACHERS OF

MADAWASKA HIGH SCHOOL
MADAWASKA SCHOOL DISTRICT
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Madawaska, Maine 04756

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PROJECT CAPABLE

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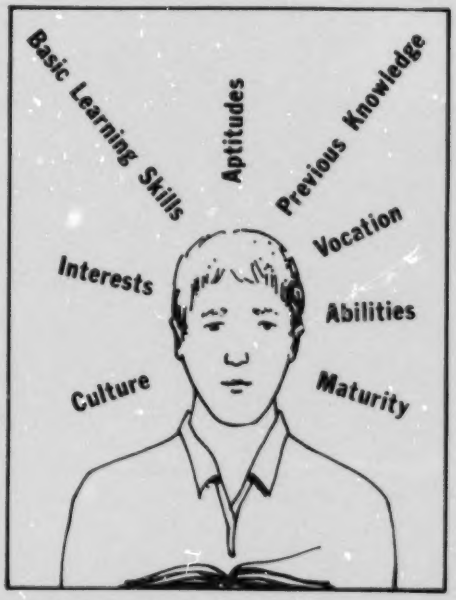
PROJECT CAPABLE

in a nutshell...

Students have difficulty learning because they lack basic learning skills necessary to make learning possible. We believe that it is a widespread problem, especially with students who have difficulty learning. We feel that high school content teachers are not trained to respond to deficiencies in learning skills. Many content teachers assume that the necessary skills have already been taught in the lower grades. Content teachers must be as aware of learning skills as they are of their content. Their classroom goal should be to use basic learning skills to teach content which, at the same time, use content to enhance basic learning skills. In this regard any high school teacher in any school district can benefit from a project such as ours.

IN SEARCH OF BETTER LEARNERS

If you feel that your job is to make subject matter available to students and it is their business whether or not they learn it, this is not for you. On the other hand, if you feel your job is to help students become efficient learners of subject matter, read on.



Individual students bring with them a unique set of personal attributes.

Many of our students are good learners. *Could they be better?*

Many of our students want to learn but have difficulty. *Can we help them become better learners?*

Many of our students have difficulty learning and do not seem to want to learn. *Can we make learning easier for them and change their attitude?*

We cannot reach everybody. We will not get overnight results. But let us begin.

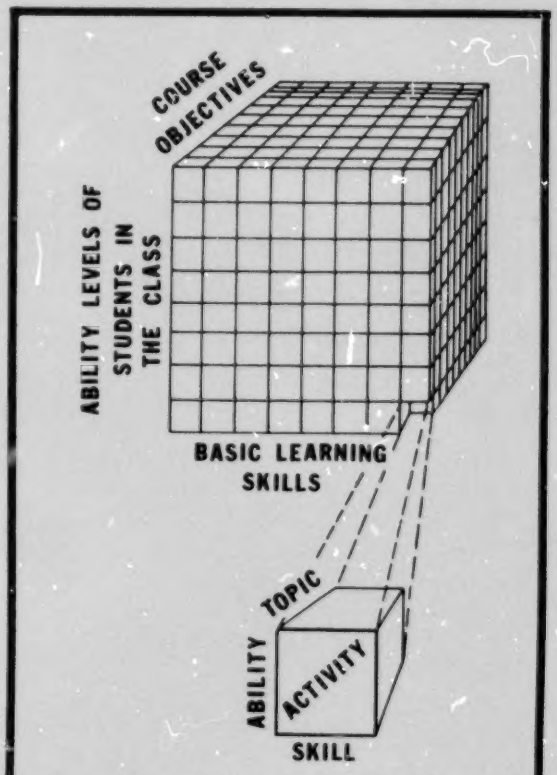
The Student Learning Experience

In order to help students become more capable learners we must look at the components of the student learning experience. The student learning experience is a complex set of factors that can be divided into two categories: those factors which the individual students bring with them and those that are part of the classroom learning environment.

Individual students bring with them a unique set of personal attributes such as cultural background, maturity, interests, abilities, aptitudes, vocational interests, previous knowledge, and basic learning skills. The classroom learning environment also has a unique set of fac-

tors, such as: you the teacher, your classroom, the number of students, the subject matter, the range of abilities of the students, the textbooks the activities, and the A.V. materials. All of these are part of the student learning experience. It is your responsibility as a teacher to organize all these factors so as to provide an appropriate, supportive, responsive learning environment for each student.

You face a complex and intricate task. You must manipulate the classroom learning environment in such a way so as to help each student learn. You must accomodate, as well as possible, the unique nature of each student. You must pay special attention to the basic learning skills the students will need to learn the subject matter. You, the teacher, must also address yourself to the degree of proficiency of each student in these skills. You must do all this while teaching your content. Put in these terms your job is overwhelming. It's no wonder that many teachers concentrate on their content and give lesser attention to the individual students and their unique characteristics.



In order for a student to learn successfully, a learning activity must not only direct itself to the topic and to the skill necessary to learn that topic, but also to the individual ability of the learner. A good learning activity will help a student increase his individual ability. That is the objective of PROJECT CAPABLE.

Teachers of content are very concerned about covering their subject matter. They are legitimately concerned about anything that takes time away from teaching content. They resist suggestions that they should teach reading, writing, spelling, etc. Anyone who has a pet concern feels that teachers should be addressing it in their classroom. Sometimes it seems a teacher is supposed to be doing 1001 other things in addition to teaching content.

BASIC LEARNING SKILLS

A persor cannot learn if he doesn't have the basic learning skills Perhaps you recognize that many students are deficient in basic learning skills and that they all need to improve them, but are at a loss as to what to do. Learning skills are a necessary path to the objective. You must recognize your obligation to develop course content integrated with basic learning skills. If any plan is to be effective, it must be a part of the curriculum and not incidental to it. This implies that the course of studies must provide for the wide range of basic learning skills. The goal should be to produce a well-integrated program (i.e. integrate basic learning skills with content) in a way that no significant class time is lost and students are learning better. To do this, you will need a plan to integrate and to coordinate all elements of the student learning experience to help students learning content while helping them become more proficient in basic learning skills.

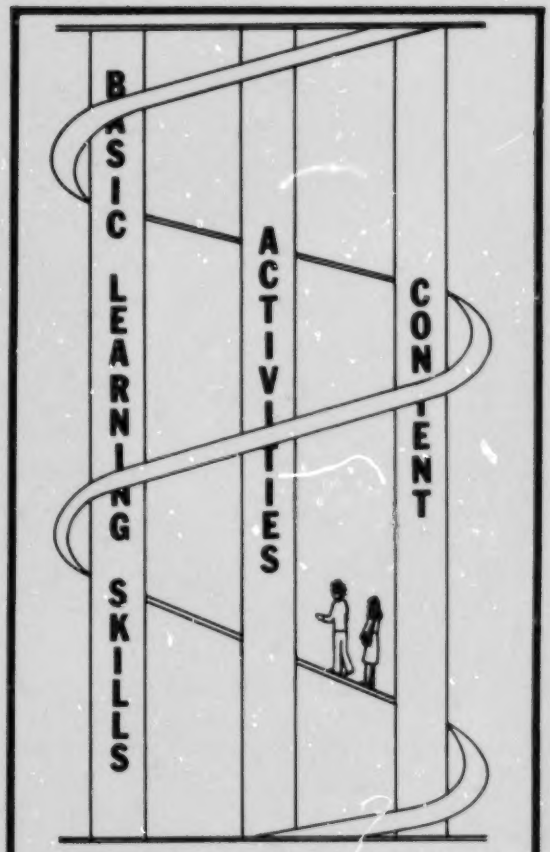
These skills are the ones the students will need when they are on their own and must direct their own study efforts. The proper use of basic learning skills is important not only for self-managed learning,

BASIC LEARNING SKILLS

- Reading Comprehension
  - Literal
  - Inferential
    - -cause/effect
    - -compare/contrast
  - Critical
    - -inference
    - -recognize assumptions
    - -deduction
    - -interpretation
    - -eval. of arguments
- Vocabulary
  - -word meaning
  - -word parts
  - -phonetic analysis
  - -structural analysis
  - -contextual clues
- Evaluating Reading Materials
  - -paragraphs
  - -main idea
  - -topic sentence
  - -relevant detail
  - -purpose for reading
  - -author's purpose & accuracy
  - -publication information
- Rate of Reading
  - -skim
  - -skan
  - -study
- Obtaining Information
  - Use of Sources
    - -table of contents
    - -index
    - -appendixes
    - -glossaries
    - -textual markers
  - Reference
    - -card catalog
    - -reader's guide
    - -almanac
    - -encyclopedia
    - -bibliographies
- Graphic Aids
  - -pictorial aids
  - -graphs
  - -tables
  - -charts
  - -maps
  - -cartoons
  - -diagrams
- Organizing and Summarizing
  - -taking notes
  - -outlining
  - -summarizing
- Following Directions
- SQ6R
- Listening
- Use of Time

but also for strengthening one of the basic aims of most school philosophies, which is "to instill in students the ability and desire to continue learning once they have left your school. "To be able to do this, not only must students be taught what to learn, but also how to learn. As a result, they will be equipped for a lifetime of learning.

Let's eliminate the word "teacher" from our vocabulary. In its place, let's substitute the word "learn". Then, what happens in your classroom is "learning" - not "teaching". This places the emphasis not on what you are doing but on what the students are doing. You are a learning coach; you help students develop and use their skills to learn, just as an athletic coach helps athletes develop and use their skills to accomplish a goal. We want to produce winners. The result of such a program should be to help each student become a more capable learner.



PROJECT CAPABLE is a classroom approach which integrates the basic learning skills with content.
Our goal is to use basic learning skills to enhance the learning of content and at the same time use the content to teach basic learning skills.

LET US BEGIN

How can you hope to accomplish such an overwhelming task? Perhaps you can't. Perhaps what is suggested here is an ideal goal, always to be pursued but never fully attained. Certainly it provides an outline for the lifelong development of methods that help students learn more effectively.

It is best to focus on small parts of the program and accomplish those step by step. The idea is not to try to accomplish everything at once. You should attempt to put one component into place each year. In subsequent years, components in place are refined and polished while a new one is added.

You cannot let timidity stop you from beginning. You must realize that effective learning depends upon adequate learning skills and that all teachers share a responsibility to help their students with these learning skills. If teachers are going to accomplish the dual goals of helping students learn content and basic learning skills with a minimal amount of lost time, a highly organized approach is essential. This program will provide one approach.

THE CLASSROOM ACTION PROGRAM

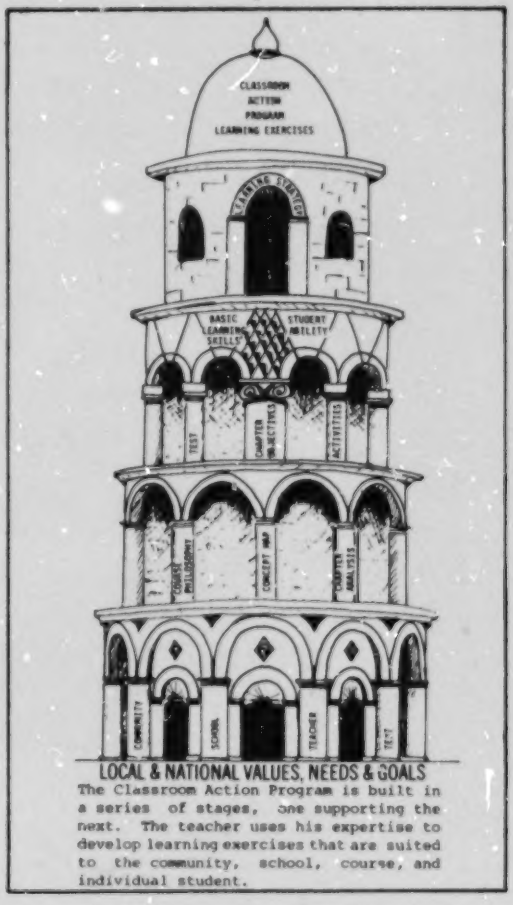
How can you more effectively do this in your classroom? You cannot hope to accomplish this overwhelming task without careful planning and a structure that keeps all the elements properly in focus. Let us start with a Classroom Action Program. The framework of the Classroom Action Program is the Directed Learning Activity. Upon this framework will be placed all of the activities which will foster the development of basic learning skills while teaching content.

THE DIRECTED LEARNING ACTIVITY

The planning, development, and presentation of a Directed Learning Activity involves the following stages: 1) Teacher Preparation, 2) Student Preparation, 3) Learning Activity, and 4) Follow-up Activity.

Teacher Preparation. When developing a Classroom Action Program, you must direct your attention to several factors which determine the learning situation. These factors form a heirarchy of considerations necessary to make your program the most appropriate and responsive. The

learning exercises the students do are supported by an overall learning strategy. That learning strategy has grown from a careful analysis of the chapter objectives, the test, the available activities and A.V. materials, the prerequisite basic learning skills, and the abilities of the individual students. These, in turn, are firmly supported by a course philosophy, goals and objectives, a concept map, and an analysis of the goals and objectives, a concept map, and an analysis of the text as determined by the community, the school, the teacher, and the text authors and publishers. Let us take a closer look at these relationships.



The Classroom Action Program is built in a series of stages, one supporting the next. The teacher uses his expertise to develop learning exercises that are suited to the community, school, course, and individual student.

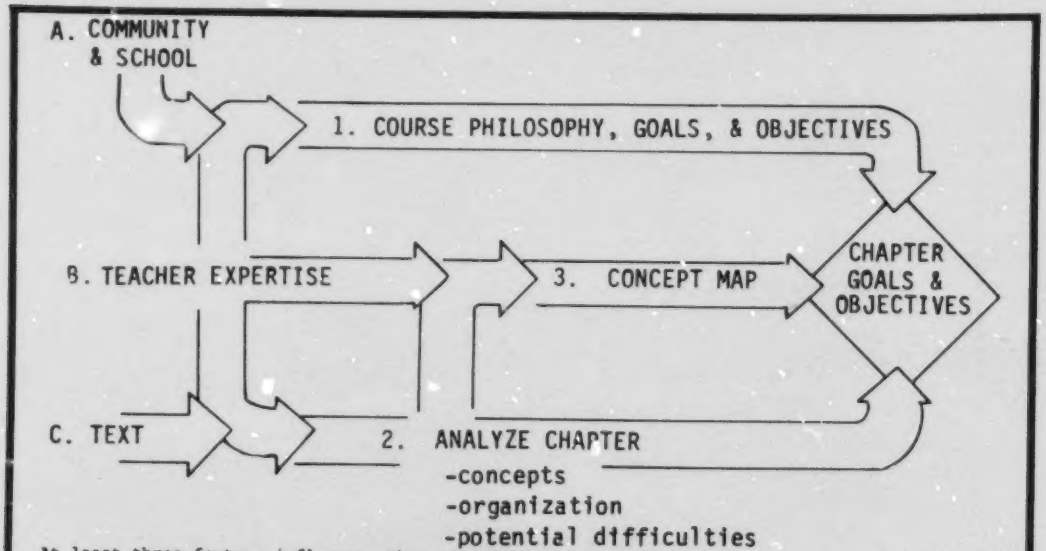
The course objectives are the central focus of the teacher preparation phase of the Classroom Action Program. The course objectives are a list of the ideas the students will be expected to learn while studying the chapter. At least three factors influence the selection of the course objectives: the school, the teacher, and the text. The major influencing factor varies from classroom to classroom. The school's philosophy is to reflect the philosophy of the community it serves. This philosophy is put into actual practice in the classroom, and the objectives chosen for students to learn should reflect this. You also have your own ideas as to what should be taught. This, together with your own expertise in your field of subject matter, will have some bearing on the course objectives.

Three activities are particularly helpful in developing goals and objectives for each chapter. First, it is useful to spend some time developing a personal philosophy. You should carefully consider what

you think should be accomplished in your classroom and provide defensible reasons for these views. You probably have such a philosophy but may not have taken the time to elucidate your point of view. Such a carefully described philosophy provides an opportunity to compare it to that of your school and of your textbook author and to make decisions on what ought to be taught. The course goals and objectives are a natural result of such a process.

Second, outlining the chapter, either mentally or verbally, before determining the chapter goals and objectives, is also a useful technique. While analyzing the chapter, you can identify the important concepts, decide how the chapter is organized, and identify those parts which will give at least some students trouble.

The third useful activity for arriving at chapter goals and objectives is a concept map. The concept map is a diagram that will show the relationship among all of the ideas to be learned in the chapter. The ideas that are diagramed come from the text and your own expertise. Such a diagram will show the order in which topics need to be discussed for a good, logical presentation and are useful in exposing any gaps that would hinder such a presentation.

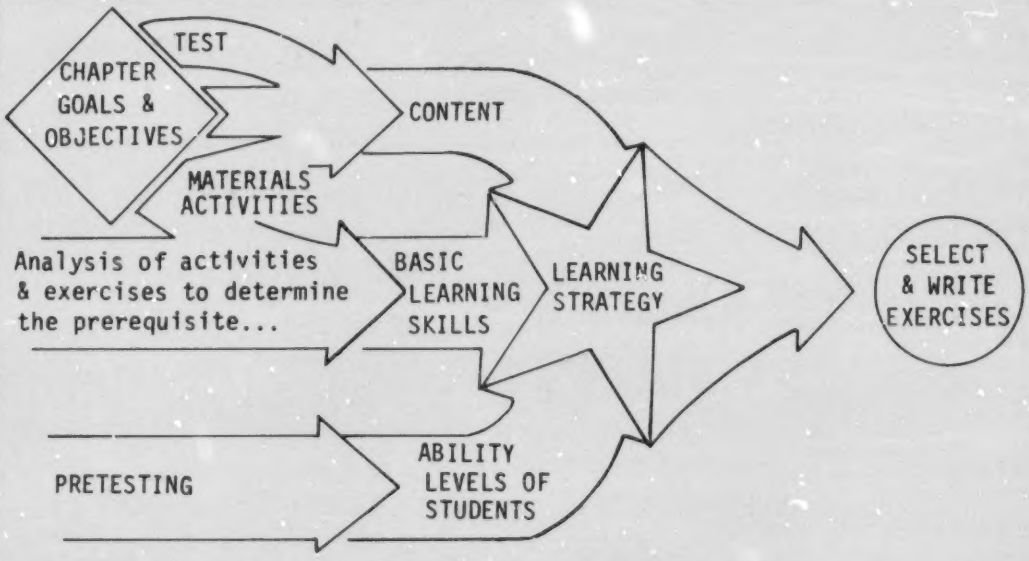


At least three factors influence the selection of course objectives: A) the school, B) the teacher, and C) the text. The chapter goals and objectives are determined by 1) a course philosophy, goals and objectives determined by the teacher and the school philosophy; 2) an analysis of the text chosen by the teacher and/or school; and 3) a concept map based upon the expertise of the teacher and the content of the text.

With the course philosophy, goals and objectives, the text outline and the concept map in hand, you can now determine the chapter goals, objectives, and activities. You can now clearly list the ideas the students will be expected to learn from their study of the chapter. You and your students know that all the objectives are appropriate, meaningful, and well-organized because of the procedure used to determine them.

The next step in preparation is to write the test. The text should be comprehensive, including all of the chapter objectives. Because the objectives and the test that evaluates those objectives form the focal points of the course, the test should be written before the objectives are taken up in class.

Now you are ready to develop learning strategies that will help your students learn the content. The concept map, chapter goals and objectives, test, list of A.V. materials, and a list of classroom activities are brought into focus. Decisions are made as to what kinds of activities will best facilitate student learning. In order to make these decisions, you must also consider what basic learning skills will be required in order to



Exercises are selected and/or written to fit the learning strategies. The learning strategies take into account 1) the content as described by the chapter goals and objectives, learned through a variety of A.V. materials and activities, and evaluated by a test; 2) the prerequisite basic learning skills as determined by an analysis of activities and exercises; and 3) the ability levels of the students as diagnosed by pretest. In this way, the learning exercises will use basic learning skills at each students level of achievement to enhance the learning of content and, at the same time, use content to help each student increase proficiency in basic learning skills.

complete successfully the learning activities at the ability levels of the students in each of these basic learning skills.

With all of this information in hand, you must write and/or select exercises that will assist your students in the development of their basic learning skills and in the learning of concepts. These exercises must use the basic learning skills at each student's level of achievement to enhance the learning of content, and at the same time, to use content to help each student increase proficiency in the basic learning skills. Some of the exercises that should be considered are the following:

1. Advanced organizers to help students organize new knowledge in their mind;
2. Directed reading lessons to help students obtain information from their reading assignment;
3. Study guides to help students extract important information from the chapter;
4. Vocabulary to help students understand new words and the concepts they represent;
5. Graphic aids to help students to learn;
6. Critical thinking to help students improve their skills in thinking and reasoning;
7. etc.

STUDENT PREPARATION

Armed with these carefully planned and developed learning activities, you are ready to meet the students. It is important that as many students as possible successfully complete the learning activity. To ensure this, students are carefully prepared before they begin. This preparation can be thought of as consisting of the following stages:

1. Orientation/Introduction to set the stage in a way that students will look forward to the lessons with interest and anticipation;
2. Motivation and Attention to arouse interest and to focus the student's attention on the problem at hand;
3. Vocabulary/Clarification of Concepts to help students understand what they are about to learn;

4. Background to explore what students already know and to clear up any misconceptions they might have;
5. Purposes set so that students will perform the activity with a goal in mind;
6. Skills Review/Direction/Review so that the students enter the activity with the skills they need to accomplish the purposes.

ACTIVITY

Following this preparation, students are ready to perform the activity with some assurance of success. The activity may be a reading assignment, laboratory, worksheets, small group discussions, etc.

DISCUSSION AND COMPREHENSION CHECK

Following the activity, there is an exchange of ideas and information to provide clarification and reinforcement by guiding and fostering reflective thinking.

SUMMARY

As previously stated, if students have the ability to learn and are to be successful, you must arrange their learning environment so they can gain as much experience as possible. Regardless of the reasons for poor learning or no learning at all, it becomes your duty to attempt to bring the students to their potential level. Because of attitude and outside influences that effect today's student, this is not an easy job. Reasearch indicates that a number of strategies or approaches can be followed or used. The approach that we have suggested is only one.

THE DIRECTED LEARNING ACTIVITY

The planning, development, and presentation of a learning acitivity involves several stages:

I. Teacher Preparation

A. (Mentally) outline the chapter to identify the important concepts, to decide how the chapter is organized, and to identify those parts which will give at least some students difficulty.

B. Develop a concept map to show the relationship among all of the ideas to be learned in the chapter.

C. Determine chapter goals, objectives, and activities to list the ideas the students will be expected to learn in the chapter.

D. Write a test to evaluate how well the objectives have been learned.

E. Develop a learning strategy to describe approaches that can be used by students of varying ability to achieve the objectives.

F. Write exercises to assist students in the development of their basic learning skills and in the learning of concepts. Some exercises that should be considered are the following:

1. Advanced organizers to help students organize new knowledge in their mind.
2. Directed reading lessons to help students obtain information from their reading assignment.
3. Study guides to help students extract important information from the chapter.
4. Vocabulary to help students understand new words and the concepts they represent.
5. graphic aids to help students use graphic aids to learn.
6. Critical thinking to help students improve their skills in thinking and reasoning.
7. etc.

II. Student Preparation

A. Orientation/Introduction to set the stage in a way that students will look forward to the lessons with interest and anticipation.

B. Motivation and Attention to arouse interest and to focus the students' attention on the problem at hand.

C. Vocabulary/Clarification of Concepts to help students understand what they are about to learn.

D. Background to explore what students already know and to clear up any misconceptions they might have.

E. Purposes Set so that students will perform the activity with a goal in mind.

F. Skills Review/Direction/Review so that the students enter the activity with the skills they need to accomplish the purposes.

III. Activity

The activity may be a reading assignment, laboratory, work sheets, small group discussions, etc.

IV. Discussion and Comprehension Check

Following the activity, there is an exchange of ideas and information to provide clarification and reinforcement by guiding and fostering reflective thinking.

ADD A PEARL!

The Directed Learning Activity of the Classroom Action Program is like the setting to a fine and exquisite ring. The course philosophy and objectives, analysis of the text, outline of the chapter, concept maps, chapter goals and objectives, tests, learning strategies, analysis of basic learning skills, the learning exercises, the student preparation activities, and the discussion and comprehension check are like pearls and gems that can be added to this setting, one by one.

The development of your Classroom Action Program is a big job. To attempt too much at once would only lead to discouragement. It is suggested that you "add a pearl" each year.

No one will have the same approach. Each teacher must design a Classroom Action Program that will best suit the course, the needs of the students, and the style, background, and expertise of the teacher. Each program will be unique.

ADD A PEARL

I. Course
   A. Course Philosophy
   B. Course Goals and Objectives
   C. Unit Goals and Objectives
II. The Directed Learning Activity
   A. Teacher Preparation
      1. Outline Chapter
      2. Concept Map
      3. Chapter Goals and objectives
      4. Write a Test
      5. Learning Strategy Worksheet
      6. Learning Strategy
      7. Write Exercises
         a. Advanced Organizers
         b. Directed Reading Lessons
         c. Concept Development
         d. Study guide
         e. Content Aids
         f. Critical Thinking
         g. Vocabulary
         h. Graphic Aids
         i. SQ6R
         j. Calendar
         k. Student Guide and Checklist
   B. Student Preparation
      1. Orientation/Introduction
      2. Motivation & Attention
      3. Vocabulary/Clarification of Concepts
      4. Background
      5. Purpose Set
      6. Skill Review/Direction Review
   C. Activity
   D. Discussion & Comprehension Check

PEARL ①

COURSE PHILOSOPHY

The course philosophy is a description of the general principles underlying the teaching and learning of content in the course. It described in general terms what the outcome of the course should by and why. The course philosophy begins with the needs of society and proceeds to describe what students need to learn to meet those needs. In this way the course philosophy reflects the teacher, school, community and nation.

PEARL ⑥

CHAPTER GOALS & OBJECTIVES

Chapter goals & objectives will list the ideas the students will be expected to learn in this chapter. These goals and objectives will guide the student in his learning activities, such as reading assignments, class discussions, filmstrips and studying.

PEARL ⑦

LEARNING STRATEGY WORKSHEET

The learning strategy worksheet will assist the teacher in coordinating content goals and objectives, basic learning skills, and classroom activities so that the most effective learning strategy can be developed.

PEARL ⑦

LEARNING STRATEGY

The Learning Strategy will describe approaches that can be used to assist students in learning the objectives. The learning strategy attempts to provide the most effective combination of content objectives, basic learning skills, and classroom activities for each student.

PEARL ⑧

ADVANCED ORGANIZERS

An advanced organizer is a pre-learning activity. It sums up the content of an activity and prepares the student so that he can successfully complete it. Advanced organizers may take the form of a summary, a study guide, a series of questions, cartoons, or overviews that will note the author's purpose and plan of presentation, explain major concepts, provide synonyms for difficult words, or paraphrase difficult text.

PEARL ⑫

CONTENT AIDS

The teacher provides any necessary readings, drawings, exercises and activities that are needed to obtain information from the chapter.

PEARL ⑬

THINKING SKILLS

A variety of exercises are provided to help students improve their skills in thinking and reasoning.

PEARL ⑭

VOCABULARY

The teacher provides a variety of exercises designed to help students understand new words and the concepts they represent. Some exercises help students become familiar with the words themselves and other exercises help students learn word meanings.

PEARL ②

COURSE GOALS & OBJECTIVES

The course goals and objectives are a natural outgrowth of the course philosophy. These are a list of the main ideas, or schemes, that the student will be expected to learn while studying the chapter. They may include values and attitudes if it is called for by the philosophy. The course objectives describe what is to be put into actual practice in the classroom as a result of the course philosophy.

PEARL ③

UNIT GOALS & OBJECTIVES

The Unit goals and objectives describe in somewhat more detail the course goals and objectives that will be taken up in the unit. The unit goals and objectives are general in nature. They will be described in behavioral terms in the chapter goals and objectives.

PEARL ④

OUTLINE CHAPTER

The outline of the chapter can be done either to decide how the chapter is organized, mentally or on paper. Its purpose is to identify the important concepts in the text, to review how the author treats those concepts, to determine if all the concepts you think are important are covered by the author, and to identify those parts which will give at least some students difficulty.

PEARL ⑤

CONCEPT MAP

The purpose of a concept map is to show the relationships among all of the ideas to be learned in the chapter. The concept map will be important in structuring the learning strategy for the chapter. The concept map can also be modified as a structured overview and advanced organizer for students.

PEARL ⑨

DIRECTED READING LESSON

The Directed Reading Lesson is a teacher-directed strategy that ensures success when a student performs a reading assignment. It consists of four parts. The preparation component provides the learner with just enough information to enable the student to read, think, and learn with success. The reading component may be silent, independent reading. If the student has difficulty with this skill, provide training by providing reading and/or reasoning guides. The third part is discussion and comprehension check. The teacher probes with questions to determine if student obtained the appropriate meaning from the reading. Finally, follow-up activities, can be used to reinforce comprhension, and to extend understanding.

PEARL ⑩

CONCEPT DEVELOPMENT

Major Concept should be identified and special attention should be paid to their development. Concept development proceeds through several levels in the mind of the learner. For the most part a learner must proceed through these levels in proper sequence. The teacher must take this into consideration when planning learning activities.

PEARL ⑪

STUDY GUIDE

The study guide is to be used with reading assignments. The teacher has made a detailed analysis of the reading material and has identified those parts which are likely to give students difficulty. Through the reading guide the teacher provides any guidance and additional information needed to extract important ideas from the chapter.

PEARL ⑮

GRAPHIC AIDS

The teacher provides exercises to help students use the various types of graphic aids. Graphic aids help students learn and help them transmit information.

PEARL ⑯

SQ6R

SQ6R (Survey, Question, Read, Reflect, Reread, Record, Recite, and Review) is a method students can learn to help them extract meaning from a reading independently. This process can be taught step by step with plenty of review and reinforcement.

PEARL ⑰

CALENDAR

The calendar provides a tentative timeline for accomplishing the work of the chapter. The approach suggested by Project Capable is quite complex. The calendar includes all aspects of the learning strategy, when they are assigned, and when they are due. The calendar will simplify the coordination of the classroom activities for both the students and the teacher.

PEARL ⑱

STUDENT GUIDE & CHECKLIST

Structural Overviews are diagrams of the content that serve as advanced organizers and prepare the student for the activity.

COURSE PHILOSOPHY

PEARL 1

CLASSROOM ACTION PROGRAM

I. Course
   A. Course Philosophy
   B. Course Goals and Objectives
   C. Unit Goals and Objectives
II. The Directed Learning Activity
   A. Teacher Preparation
      1. Outline Chapter
      2. Concept Map
      3. Chapter Goals and objectives
      4. Write a Test
      5. Learning Strategy Worksheet
      6. Learning Strategy
      7. Write Exercises
         a. Advanced Organizers
         b. Directed Reading Lessons
         c. Concept Development
         d. Study guide
         e. Content Aids
         f. Critical Thinking
         g. Vocabulary
         h. Graphic Aids
         i. SQ6R
         j. Calendar
         k. Student Guide and Checklist
   B. Student Preparation
      1. Orientation/Introduction
      2. Motivation & Attention
      3. Vocabulary/Clarification of Concepts
      4. Background
      5. Purpose Set
      6. Skill Review/Direction Review
   C. Activity
   D. Discussion & Comprehension Check

HIGHLIGHTED SKILLS

Teacher Preparation Phase of Directed Learning Activity

RATIONALE

The course philosophy is a description of the general principles underlying the teaching and learning of content in the course. It described in general terms what the outcome of the course should by and why. The course philosophy begins with the needs of society and proceeds to describe what students need to learn to meet those needs. In this way the course philosophy reflects the teacher, school, community and nation.

TEACHER/STUDENT REACTION

"We talk philosophy all the time but when we need to write it down it is necessary to go through a serious self-analysis. I genuinely enjoyed writing my philosophy of teaching. It was in that process that I discovered what I really stand for as a teacher."

COURSE GOALS & OBJECTIVES

PEARL ②

CLASSROOM ACTION PROGRAM

I. Course
   A. Course Philosophy
   B. Course Goals and Objectives
   C. Unit Goals and Objectives
II. The Directed Learning Activity
   A. Teacher Preparation
      1. Outline Chapter
      2. Concept Map
      3. Chapter Goals and objectives
      4. Write a Test
      5. Learning Strategy Worksheet
      6. Learning Strategy
      7. Write Exercises
         a. Advanced Organizers
         b. Directed Reading Lessons
         c. Concept Development
         d. Study guide
         e. Content Aids
         f. Critical Thinking
         g. Vocabulary
         h. Graphic Aids
         i. SQ6R
         j. Calendar
         k. Student Guide and Checklist
   B. Student Preparation
      1. Orientation/Introduction
      2. Motivation & Attention
      3. Vocabulary/Clarification of Concepts
      4. Background
      5. Purpose Set
      6. Skill Review/Direction Review
   C. Activity
   D. Discussion & Comprehension Check

HIGHLIGHTED SKILLS

Teacher Preparation Phase of Directed Learning Activity

RATIONALE

The course goals and objectives are a natural outgrowth of the course philosophy. These are a list of the main ideas, or schemes, that the student will be expected to learn while studying the chapter. They may include values and attitudes if it is called for by the philosophy. The course objectives describe what is to be put into actual practice in the classroom as a result of the course philosophy.

TEACHER/STUDENT REACTION

"The course goals and objectives have served me in two ways. First, they serve as an overview to the course. I can see at a glance what the course is all about. Second, it helps keep in focus what I expect my students to know when they finish the course."

UNIT GOALS & OBJECTIVES

PEARL ③

CLASSROOM ACTION PROGRAM

I. Course
  A. Course Philosophy
  B. Course Goals and Objectives
  C. Unit Goals and Objectives
II. The Directed Learning Activity
  A. Teacher Preparation
    1. Outline Chapter
    2. Concept Map
    3. Chapter Goals and objectives
    4. Write a Test
    5. Learning Strategy Worksheet
    6. Learning Strategy
    7. Write Exercises
      a. Advanced Organizers
      b. Directed Reading Lessons
      c. Concept Development
      d. Study guide
      e. Content Aids
      f. Critical Thinking
      g. Vocabulary
      h. Graphic Aids
      i. SQ6R
      j. Calendar
      k. Student Guide and Checklist
  B. Student Preparation
    1. Orientation/Introduction
    2. Motivation & Attention
    3. Vocabulary/Clarification of Concepts
    4. Background
    5. Purpose Set
    6. Skill Review/Direction Review
  C. Activity
  D. Discussion & Comprehension Check

HIGHLIGHTED SKILLS

Teacher Preparation Phase of Directed Learning Activity

RATIONALE

The Unit goals and objectives describe in somewhat more detail the course goals and objectives that will be taken up in the unit. The unit goals and objectives are general in nature. They will be described in behavioral terms in the chapter goals and objectives.

TEACHER/STUDENT REACTION

"I have found unit goals and objectives to be a useful bridge between the course goals and objectives and those for the chapter. I find the course, unit and chapter goals and objectives essential for providing organized and meaningful learning experiences."

OUTLINE CHAPTER

PEARL ④

CLASSROOM ACTION PROGRAM

I. Course
   A. Course Philosophy
   B. Course Goals and Objectives
   C. Unit Goals and Objectives
II. The Directed Learning Activity
   A. Teacher Preparation
      1. Outline Chapter
      2. Concept Map
      3. Chapter Goals and objectives
      4. Write a Test
      5. Learning Strategy Worksheet
      6. Learning Strategy
      7. Write Exercises
         a. Advanced Organizers
         b. Directed Reading Lessons
         c. Concept Development
         d. Study guide
         e. Content Aids
         f. Critical Thinking
         g. Vocabulary
         h. Graphic Aids
         i. SQ6R
         j. Calendar
         k. Student Guide and Checklist
   B. Student Preparation
      1. Orientation/Introduction
      2. Motivation & Attention
      3. Vocabulary/Clarification of Concepts
      4. Background
      5. Purpose Set
      6. Skill Review/Direction Review
   C. Activity
   D. Discussion & Comprehension Check

HIGHLIGHTED SKILLS

Teacher Preparation Phase of Directed Learning Activity

RATIONALE

The outline of the chapter can be done either to decide how the chapter is organized, mentally or on paper. Its purpose is to identify the important concepts in the text, to review how the author treats those concepts, to determine if all the concepts you think are important are covered by the author, and to identify those parts which will give at least some students difficulty.

TEACHER/STUDENT REACTION

"I overlooked this for so many years. Now that I am giving students prereading experiences and a study guide. I find I must look at the chapter critically, I must try to see the chapter through the eyes of the students. If I outline the chapter I must pick out topic sentences, main ideas, and supporting detail, just as they do. I am much better prepared to help them get meaning from the text."

CONCEPT MAP

PEARL 5

CLASSROOM ACTION PROGRAM

I. Course
   A. Course Philosophy
   B. Course Goals and Objectives
   C. Unit Goals and Objectives
II. The Directed Learning Activity
   A. Teacher Preparation
      1. Outline Chapter
      2. Concept Map
      3. Chapter Goals and objectives
      4. Write a Test
      5. Learning Strategy Worksheet
      6. Learning Strategy
      7. Write Exercises
         a. Advanced Organizers
         b. Directed Reading Lessons
         c. Concept Development
         d. Study guide
         e. Content Aids
         f. Critical Thinking
         g. Vocabulary
         h. Graphic Aids
         i. SQ6R
         j. Calendar
         k. Student Guide and Checklist
   B. Student Preparation
      1. Orientation/Introduction
      2. Motivation & Attention
      3. Vocabulary/Clarification of Concepts
      4. Background
      5. Purpose Set
      6. Skill Review/Direction Review
   C. Activity
   D. Discussion & Comprehension Check

HIGHLIGHTED SKILLS

Teacher Preparation Phase of Directed Learning Activity

RATIONALE

The purpose of a concept map is to show the relationships among all of the ideas to be learned in the chapter. The concept map will be important in structuring the learning strategy for the chapter. The concept map can also be modified as a structured overview and advanced organizer for students.

TEACHER/STUDENT REACTION

"Does the text cover this subject completely? Do I need to supplement? What is the relationship between ideas? Which ideas need to be taken up before others? What am I assuming that students already know? Concept maps have been invaluable in working through this thicket of concerns."

CHAPTER GOALS & OBJECTIVES

PEARL 6

CLASSROOM ACTION PROGRAM

I. Course
   A. Course Philosophy
   B. Course Goals and Objectives
   C. Unit Goals and Objectives
II. The Directed Learning Activity
   A. Teacher Preparation
      1. Outline Chapter
      2. Concept Map
      3. Chapter Goals and objectives
      4. Write a Test
      5. Learning Strategy Worksheet
      6. Learning Strategy
      7. Write Exercises
         a. Advanced Organizers
         b. Directed Reading Lessons
         c. Concept Development
         d. Study guide
         e. Content Aids
         f. Critical Thinking
         g. Vocabulary
         h. Graphic Aids
         i. SQ6R
         j. Calendar
         k. Student Guide and Checklist
   B. Student Preparation
      1. Orientation/Introduction
      2. Motivation & Attention
      3. Vocabulary/Clarification of Concepts
      4. Background
      5. Purpose Set
      6. Skill Review/Direction Review
   C. Activity
   D. Discussion & Comprehension Check

HIGHLIGHTED SKILLS

Teacher Preparation Phase of Directed Learning Activity

RATIONALE

Chapter goals & objectives will list the ideas the students will be expected to learn in this chapter. These goals and objectives will guide the student in his learning activities, such as reading assignments, class discussions, filmstrips and studying.

The list of activities presents all of the resources that are available for students to learn the goals and objectives.

"They break your work up into comprehensible pieces."

"The objectives are helpful. They get to the point of your learning and I don't mess around with unimportant stuff."

"I think the P.C.'s are helpful because they help me remember things I might forget to study for the test."

TEACHER/STUDENT REACTION

"I find that the Objectives are very helpful because when I take a closer look at the chapter and the answers to the objectives it helps me to understand what the chapter is all about."

LEARNING STRATEGY WORKSHEET

PEARL 7

CLASSROOM ACTION PROGRAM

I. Course
   A. Course Philosophy
   B. Course Goals and Objectives
   C. Unit Goals and Objectives
II. The Directed Learning Activity
   A. Teacher Preparation
      1. Outline Chapter
      2. Concept Map
      3. Chapter Goals and objectives
      4. Write a Test
      5. Learning Strategy Worksheet
      6. Learning Strategy
      7. Write Exercises
         a. Advanced Organizers
         b. Directed Reading Lessons
         c. Concept Development
         d. Study guide
         e. Content Aids
         f. Critical Thinking
         g. Vocabulary
         h. Graphic Aids
         i. SQ6R
         j. Calendar
         k. Student Guide and Checklist
   B. Student Preparation
      1. Orientation/Introduction
      2. Motivation & Attention
      3. Vocabulary/Clarification of Concepts
      4. Background
      5. Purpose Set
      6. Skill Review/Direction Review
   C. Activity
   D. Discussion & Comprehension Check

HIGHLIGHTED SKILLS

Teacher Preparation Phase of Directed Learning Activity

RATIONALE

The learning strategy worksheet will assist the teacher in coordinating content goals and objectives, basic learning skills, and classroom activities so that the most effective learning strategy can be developed.

TEACHER/STUDENT REACTION

"How am I going to help all my students, whether slow, average or talented, learn a particular idea? Clearly described learning strategies have been a great help in achieving effective plans of attack."

LEARNING STRATEGY

PEARL 7

CLASSROOM ACTION PROGRAM

I. Course
   A. Course Philosophy
   B. Course Goals and Objectives
   C. Unit Goals and Objectives
II. The Directed Learning Activity
   A. Teacher Preparation
      1. Outline Chapter
      2. Concept Map
      3. Chapter Goals and objectives
      4. Write a Test
      5. Learning Strategy Worksheet
      6. Learning Strategy
      7. Write Exercises
         a. Advanced Organizers
         b. Directed Reading Lessons
         c. Concept Development
         d. Study guide
         e. Content Aids
         f. Critical Thinking
         g. Vocabulary
         h. Graphic Aids
         i. SQ6R
         j. Calendar
         k. Student Guide and Checklist
   B. Student Preparation
      1. Orientation/Introduction
      2. Motivation & Attention
      3. Vocabulary/Clarification of Concepts
      4. Background
      5. Purpose Set
      6. Skill Review/Direction Review
   C. Activity
   D. Discussion & Comprehension Check

HIGHLIGHTED SKILLS

Teacher Preparation Phase of Directed Learning Activity

RATIONALE

The Learning Strategy will describe approaches that can be used to assist students in learning the objectives. The learning strategy attempts to provide the most effective combination of content objectives, basic learning skills, and classroom activities for each student.

TEACHER/STUDENT REACTION

"How am I going to help all my students, whether slow, average or talented, learn a particular idea? Clearly described learning strategies have been a great help in achieving effective plans of attack."

ADVANCED ORGANIZERS

PEARL 8

CLASSROOM ACTION PROGRAM

I. Course
   A. Course Philosophy
   B. Course Goals and Objectives
   C. Unit Goals and Objectives
II. The Directed Learning Activity
   A. Teacher Preparation
      1. Outline Chapter
      2. Concept Map
      3. Chapter Goals and objectives
      4. Write a Test
      5. Learning Strategy Worksheet
      6. Learning Strategy
      7. Write Exercises
         a. Advanced Organizers
         b. Directed Reading Lessons
         c. Concept Development
         d. Study guide
         e. Content Aids
         f. Critical Thinking
         g. Vocabulary
         h. Graphic Aids
         i. SQ6R
         j. Calendar
         k. Student Guide and Checklist
   B. Student Preparation
      1. Orientation/Introduction
      2. Motivation & Attention
      3. Vocabulary/Clarification of Concepts
      4. Background
      5. Purpose Set
      6. Skill Review/Direction Review
   C. Activity
   D. Discussion & Comprehension Check

HIGHLIGHTED SKILLS

Comprehension	Rate of Study
Vocabulary	Graphic Aids
Evaluate Material	Organize & Summarize

RATIONALE

An advanced organizer is a pre-learning activity. It sums up the content of an activity and prepares the student so that he can successfully complete it. Advanced organizers may take the form of a summary, a study guide, a series of questions, cartoons, or overviews that will note the author's purpose and plan of presentation, explain major concepts, provide synonyms for difficult words, or paraphrase difficult text.

Structural Overviews are diagrams of the content that serve as advanced organizers and prepare the student for the activity.

TEACHER/STUDENT REACTION

"These are helpful because it lets us know what we're getting into. We don't go into the assignment blindly."

"The overviews are for me the most helpful thing that every teacher can do. I like it because it makes it easier for me to understand the chapter."

"It is very helpful to know ahead of time what we are going to learn in the chapter."

DIRECTED READING LESSON

PEARL 9

CLASSROOM ACTION PROGRAM

I. Course
   A. Course Philosophy
   B. Course Goals and Objectives
   C. Unit Goals and Objectives
II. The Directed Learning Activity
   A. Teacher Preparation
      1. Outline Chapter
      2. Concept Map
      3. Chapter Goals and objectives
      4. Write a Test
      5. Learning Strategy Worksheet
      6. Learning Strategy
      7. Write Exercises
         a. Advanced Organizers
         b. Directed Reading Lessons
         c. Concept Development
         d. Study guide
         e. Content Aids
         f. Critical Thinking
         g. Vocabulary
         h. Graphic Aids
         i. SQ6R
         j. Calendar
         k. Student Guide and Checklist
   B. Student Preparation
      1. Orientation/Introduction
      2. Motivation & Attention
      3. Vocabulary/Clarification of Concepts
      4. Background
      5. Purpose Set
      6. Skill Review/Direction Review
   C. Activity
   D. Discussion & Comprehension Check

HIGHLIGHTED SKILLS

Comprehension	Rate of Study
Vocabulary	Graphic Aids
Evaluate Material	Organize & Summarize
Use of Time	SQ6R

RATIONALE

The Directed Reading Lesson is a teacher-directed strategy that ensures success when a student performs a reading assignment. It consists of four parts. The preparation component provides the learner with just enough information to enable the student to read, think, and learn with success. The reading component may be silent, independent reading. If the student has difficulty with this skill, provide training by providing reading and/or reasoning guides. The third part is discussion and comprehension check. The teacher probes with questions to determine if student obtained the appropriate meaning from the reading. Finally, follow-up activities, can be used to reinforce comprhension, and to extend understanding.

TEACHER/STUDENT REACTION

"My major frustration has been that students have not been able to learn from reading assignments. Now I have the answer - directed reading lessons!"

CONCEPT DEVELOPMENT

PEARL 10

CLASSROOM ACTION PROGRAM

I. Course
   A. Course Philosophy
   B. Course Goals and Objectives
   C. Unit Goals and Objectives
II. The Directed Learning Activity
   A. Teacher Preparation
      1. Outline Chapter
      2. Concept Map
      3. Chapter Goals and objectives
      4. Write a Test
      5. Learning Strategy Worksheet
      6. Learning Strategy
      7. Write Exercises
         a. Advanced Organizers
         b. Directed Reading lessons
         c. Concept Development
         d. Study guide
         e. Content Aids
         f. Critical Thinking
         g. Vocabulary
         h. Graphic Aids
         i. SQ6R
         j. Calendar
         k. Student Guide and Checklist
   B. Student Preparation
      1. Orientation/Introduction
      2. Motivation & Attention
      3. Vocabulary/Clarification of Concepts
      4. Background
      5. Purpose Set
      6. Skill Review/Direction Review
   C. Activity
   D. Discussion & Comprehension Check

HIGHLIGHTED SKILLS

Comprehension
Vocabulary

RATIONALE

Major Concept should be identified and special attention should be paid to their development. Concept development proceeds through several levels in the mind of the learner. For the most part a learner must proceed through these levels in proper sequence. The teacher must take this into consideration when planning learning activities.

TEACHER/STUDENT REACTION

"Concept development really works! I've had marvelous success in helping students begin with concrete and specific examples and in working toward more abstract and general meanings."

STUDY GUIDE

PEARL 11

CLASSROOM ACTION PROGRAM

I. Course
   A. Course Philosophy
   B. Course Goals and Objectives
   C. Unit Goals and Objectives
II. The Directed Learning Activity
   A. Teacher Preparation
      1. Outline Chapter
      2. Concept Map
      3. Chapter Goals and objectives
      4. Write a Test
      5. Learning Strategy Worksheet
      6. Learning Strategy
      7. Write Exercises
         a. Advanced Organizers
         b. Directed Reading Lessons
         c. Concept Development
         d. Study guide
         e. Content Aids
         f. Critical Thinking
         g. Vocabulary
         h. Graphic Aids
         i. SQ6R
         j. Calendar
         k. Student Guide and Checklist
   B. Student Preparation
      1. Orientation/Introduction
      2. Motivation & Attention
      3. Vocabulary/Clarification of Concepts
      4. Background
      5. Purpose Set
      6. Skill Review/Direction Review
   C. Activity
   D. Discussion & Comprehension Check

HIGHLIGHTED SKILLS

Comprehension	Rate of Study
Vocabulary	Graphic Aids
Evaluate Material	Organize & Summarize

RATIONALE

The study guide is to be used with reading assignments. The teacher has made a detailed analysis of the reading material and has identified those parts which are likely to give students difficulty. Through the reading guide the teacher provides any guidance and additional information needed to extract important ideas from the chapter.

TEACHER/STUDENT REACTION

"I think the study guides are a great help in finding the correct ideas. They also help a person study. I wish the other teachers would do the same."

"Of all of the activities, the ones I found most helpful and liked the most were the study guides. They helped me understand what the paragraphs from the reading were all about."

CLASSROOM ACTION PROGRAM

I. Course
   A. Course Philosophy
   B. Course Goals and Objectives
   C. Unit Goals and Objectives
II. The Directed Learning Activity
   A. Teacher Preparation
      1. Outline Chapter
      2. Concept Map
      3. Chapter Goals and objectives
      4. Write a Test
      5. Learning Strategy Worksheet
      6. Learning Strategy
      7. Write Exercises
         a. Advanced Organizers
         b. Directed Reading Lessons
         c. Concept Development
         d. Study guide
         e. Content Aids
         f. Critical Thinking
         g. Vocabulary
         h. Graphic Aids
         i. SQ6R
         j. Calendar
         k. Student Guide and Checklist
   B. Student Preparation
      1. Orientation/Introduction
      2. Motivation & Attention
      3. Vocabulary/Clarification of Concepts
      4. Background
      5. Purpose Set
      6. Skill Review/Direction Review
   C. Activity
   D. Discussion & Comprehension Check

HIGHLIGHTED SKILLS

Supplementary to Content

RATIONALE

The teacher provides any necessary readings, drawings, exercises and activities that are needed to obtain information from the chapter.

TEACHER/STUDENT REACTION

"So often I know of a better way to explain something than what is in the book. Supplementary content materials are essential."

THINKING SKILLS

PEARL 13

CLASSROOM ACTION PROGRAM

I. Course
   A. Course Philosophy
   B. Course Goals and Objectives
   C. Unit Goals and Objectives
II. The Directed Learning Activity
   A. Teacher Preparation
      1. Outline Chapter
      2. Concept Map
      3. Chapter Goals and objectives
      4. Write a Test
      5. Learning Strategy Worksheet
      6. Learning Strategy
      7. Write Exercises
         a. Advanced Organizers
         b. Directed Reading Lessons
         c. Concept Development
         d. Study guide
         e. Content Aids
         f. Critical Thinking
         g. Vocabulary
         h. Graphic Aids
         i. SQ6R
         j. Calendar
         k. Student Guide and Checklist
   B. Student Preparation
      1. Orientation/Introduction
      2. Motivation & Attention
      3. Vocabulary/Clarification of Concepts
      4. Background
      5. Purpose Set
      6. Skill Review/Direction Review
   C. Activity
   D. Discussion & Comprehension Check

HIGHLIGHTED SKILLS

Comprehension

RATIONALE

A variety of exercises are provided to help students improve their skills in thinking and reasoning.

TEACHER/STUDENT REACTION

"I thought the thinking skills were very helpful because they let me use my head."

"I like the thinking problems because they were a lot of fun to do, and they really make you think."

VOCABULARY

PEARL 14

CLASSROOM ACTION PROGRAM

I. Course
   A. Course Philosophy
   B. Course Goals and Objectives
   C. Unit Goals and Objectives
II. The Directed Learning Activity
   A. Teacher Preparation
      1. Outline Chapter
      2. Concept Map
      3. Chapter Goals and objectives
      4. Write a Test
      5. Learning Strategy Worksheet
      6. Learning Strategy
      7. Write Exercises
         a. Advanced Organizers
         b. Directed Reading Lessons
         c. Concept Development
         d. Study guide
         e. Content Aids
         f. Critical Thinking
         g. Vocabulary
         h. Graphic Aids
         i. SQ6R
         j. Calendar
         k. Student Guide and Checklist
   B. Student Preparation
      1. Orientation/Introduction
      2. Motivation & Attention
      3. Vocabulary/Clarification of Concepts
      4. Background
      5. Purpose Set
      6. Skill Review/Direction Review
   C. Activity
   D. Discussion & Comprehension Check

HIGHLIGHTED SKILLS

Comprehension
Concept Development

RATIONALE

The teacher provides a variety of exercises designed to help students understand new words and the concepts they represent. Some exercises help students become familiar wich the words themselves and other exercises help students learn word meanings.

TEACHER/STUDENT REACTION

"I think word finds and crosswords are helpful for vocabulary; they're always a big help on the tests."

"The think I enjoyed most was the word find. It was easy to do and prepared us for what we were going to take up."

GRAPHIC AIDS

PEARL (15)

CLASSROOM ACTION PROGRAM

I. Course
   A. Course Philosophy
   B. Course Goals and Objectives
   C. Unit Goals and Objectives
II. The Directed Learning Activity
   A. Teacher Preparation
      1. Outline Chapter
      2. Concept Map
      3. Chapter Goals and objectives
      4. Write a Test
      5. Learning Strategy Worksheet
      6. Learning Strategy
      7. Write Exercises
         a. Advanced Organizers
         b. Directed Reading Lessons
         c. Concept Development
         d. Study guide
         e. Content Aids
         f. Critical Thinking
         g. Vocabulary
         h. Graphic Aids
         i. SQ6R
         j. Calendar
         k. Student Guide and Checklist
   B. Student Preparation
      1. Orientation/Introduction
      2. Motivation & Attention
      3. Vocabulary/Clarification of Concepts
      4. Background
      5. Purpose Set
      6. Skill Review/Direction Review
   C. Activity
   D. Discussion & Comprehension Check

HIGHLIGHTED SKILLS

Comprehension
Critical Thinking

RATIONALE

The teacher provides exercises to help students use the various types of graphic aids. Graphic aids help students learn and help them transmit information.

TEACHER/STUDENT REACTION

"I assumed that all students could work with tables and graphs by the time they got to my course, but, of course, they couldn't. Now I have developed exercises that will help all my students become more proficient in the reading, interpreting, and making of graphs and tables."

SQ6R

PEARL 16

CLASSROOM ACTION PROGRAM

I. Course
   A. Course Philosophy
   B. Course Goals and Objectives
   C. Unit Goals and Objectives
II. The Directed Learning Activity
   A. Teacher Preparation
      1. Outline Chapter
      2. Concept Map
      3. Chapter Goals and objectives
      4. Write a Test
      5. Learning Strategy Worksheet
      6. Learning Strategy
      7. Write Exercises
         a. Advanced Organizers
         b. Directed Reading Lessons
         c. Concept Development
         d. Study guide
         e. Content Aids
         f. Critical Thinking
         g. Vocabulary
         h. Graphic Aids
         i. SQ6R
         j. Calendar
         k. Student Guide and Checklist
   B. Student Preparation
      1. Orientation/Introduction
      2. Motivation & Attention
      3. Vocabulary/Clarification of Concepts
      4. Background
      5. Purpose Set
      6. Skill Review/Direction Review
   C. Activity
   D. Discussion & Comprehension Check

HIGHLIGHTED SKILLS

Comprehension
Vocabulary
Evaluate Material
Critical Thinking
Organize & Summarize

RATIONALE

SQ6R (Survey, Question, Read, Reflect, Reread, Record, Recite, and Review) is a method students can learn to help them extract meaning from a reading independently. This process can be taught step by step with plenty of review and reinforcement.

TEACHER/STUDENT REACTION

"SQ6R helps you remember what you read."

"I like the SQ6R because it helps me study and prepare better for a test."

CALENDAR

PEARL 17

CLASSROOM ACTION PROGRAM

I. Course
   A. Course Philosophy
   B. Course Goals and Objectives
   C. Unit Goals and Objectives
II. The Directed Learning Activity
   A. Teacher Preparation
      1. Outline Chapter
      2. Concept Map
      3. Chapter Goals and objectives
      4. Write a Test
      5. Learning Strategy Worksheet
      6. Learning Strategy
      7. Write Exercises
         a. Advanced Organizers
         b. Directed Reading Lessons
         c. Concept Development
         d. Study guide
         e. Content Aids
         f. Critical Thinking
         g. Vocabulary
         h. Graphic Aids
         i. SQ6R
         j. Calendar
         k. Student Guide and Checklist
   B. Student Preparation
      1. Orientation/Introduction
      2. Motivation & Attention
      3. Vocabulary/Clarification of Concepts
      4. Background
      5. Purpose Set
      6. Skill Review/Direction Review
   C. Activity
   D. Discussion & Comprehension Check

HIGHLIGHTED SKILLS

Use of time
Organize & Summarize

RATIONALE

The calendar provides a tentative timeline for accomplishing the work of the chapter. The approach suggested by Project Capable is quite complex. The calendar includes all aspects of the learning strategy, when they are assigned, and when they are due. The calendar will simplify the coordination of the classroom activities for both the students and the teacher.

TEACHER/STUDENT REACTION

"I liked the calendar because then I had a schedule of what had to be done at a certain time and I was organized."

"I liked the calendar because it helped me to schedule my time a lot better. I wish every teacher would give us one every week."

STUDENT GUIDE & CHECKLIST

PEARL 18

CLASSROOM ACTION PROGRAM

I. Course
   A. Course Philosophy
   B. Course Goals and Objectives
   C. Unit Goals and Objectives
II. The Directed Learning Activity
   A. Teacher Preparation
      1. Outline Chapter
      2. Concept Map
      3. Chapter Goals and objectives
      4. Write a Test
      5. Learning Strategy Worksheet
      6. Learning Strategy
      7. Write Exercises
         a. Advanced Organizers
         b. Directed Reading Lessons
         c. Concept Development
         d. Study guide
         e. Content Aids
         f. Critical Thinking
         g. Vocabulary
         h. Graphic Aids
         i. SQ6R
         j. Calendar
         k. Student Guide and Checklist
   B. Student Preparation
      1. Orientation/Introduction
      2. Motivation & Attention
      3. Vocabulary/Clarification of Concepts
      4. Background
      5. Purpose Set
      6. Skill Review/Direction Review
   C. Activity
   D. Discussion & Comprehension Check

HIGHLIGHTED SKILLS

Use of time
Organize & Summarize

RATIONALE

The student guide and checklist goes hand in hand with the calendar in coordinating the learning activities for the students.

TEACHER/STUDENT REACTION

"I found that the checklist helped me very much. I knew exactly when everything was due because it was in writing and not by word of mouth. I could go ahead if by chance my schedule did not permit any time the next day."

"I always knew what was for homework. I didn't have to worry about missing the assignment."

DOES PROJECT CAPABLE WORK?

WHAT DO OUR STUDENTS SAY?

WHAT DOES OUR EXPERIMENTAL DATA SHOW?

WHAT DOES A STUDENT SURVEY SHOW?

WHAT DO PARTICIPATING TEACHERS SAY?

DOES PROJECT CAPABLE WORK?

HERE'S WHAT OUR STUDENTS SAY!

"Project CAPABLE really helped me with my reading. Before we started Project CAPABLE, I had a hard time reading, but now I like to read books. It helped me with spelling words and pronouncing them. I think that Project CAPABLE has good skills to learn, and it helps a lot."

"I find it a better approach than in other classes. This is a class with alot to learn and I feel the project exercises are helping me to get the most out of the class."

"The things you do in here are much more fun. The project helps us think and work things out for ourselves."

"They help me to learn. They help me to organize myself. They help me to get the most you have to offer."

"I found that Project CAPABLE has improved my reading and the reading of others. This project makes me want to read. I think every kid in school should use this project. I can find the meaning of words I've never seen before when it's in a phrase."

"It's worth it because it's helping us students understand what we're doing."

"The project is helpful and necessary."

"I think it helped me understand what I'm reading and I'm sure there are a lot of kids that don't really understand what they're reading. Maybe if they were taught Project CAPABLE, they would understand what they're reading and would be more interested in reading. At least I'm more interested."

"The way the unit was presented was enjoyable. The cartoons, stories, and reading of our creations out loud was fun."

"It is worth it and the teacher is getting through to more people than he would by not doing it."

"I am learning more because it gives a variety of information concerning the subject at hand. Teaching us how to use our minds to better advantage carries over into the other classes."

"I think it is worthwhile and more fun. We are trying for a harder goal."

"It gives you an easier way to accomplish what you have to do while working at a high capacity. You use more of your brains in working with project CAPABLE."

"It helps us think about the work in the book as fun and interesting instead of dull and boring."

"It helps us realize what is going on more so than in other classes."

"I find that they're all helpful in some way or another. They all add a needed piece of information. I like especially the following: word find, crossword, thinking problems, study guides, and lab exercises because they are all interesting and fun to do. I don't feel like I'm wasting my time doing them because they're motivating."

"It's helpful. Without study guides, the book would be difficult to understand because they use words and phrases that they expect us to know but sometimes we don't."

"I am learning better with all your activities, and it makes me remember the things you teach longer than if I were to just read the book on my own."

"I think that these exercises help very much although we spend more time learning one thing. These exercises help me to understand more details about what we are taking up. Although this is a pretty hard course, these exercises make it easier."

"I think that it is worth it; we learn better because we have more information."

"It works fine. The program helped me organize my work and activities."

"Project CAPABLE is excellent; it helped me a lot. Now I can read books better and know the meanings of words I never seen before. Best of all, it brought my grades up."

"I found that "Project CAPABLE" was very helpful to my reading abilities in that it helped me read on a better interpretive level."

"Project CAPABLE really helped me with my reading. I hardly ever read, but now I read a book a month. When I come to a word I don't know, I can figure it out without looking in a dictionary by reading the rest of the sentence. I hope you deep giving it to the students in the years to come."

"I think it's a very useful way of approaching work. It helps me a lot and it makes learning fun. It's much easier to understand."

"When we do these exercises, it's helping me to think more than I usually do. I find they're fun and it helps me to understand what we're doing and what a certain chapter is about."

DOES PROJECT CAPABLE WORK?

HERE'S WHAT A STUDENT SURVEY SHOWED!

=AGREE =UNDECIDED =DISAGREE

The book was easy to read and to understand without any other help.

The readings were easy to read and to understand without any other help.

The study guides helped me understand the textbook.

The study guides helped me understand the readings.

The performance criteria helped guide my study so that I know what is important.

The overview given at the beginning of the chapter was useful because it helped organize what I was about to learn.

The word find was helpful because it introduced me to the words before I read them in the book.

The crossword puzzle was helpful in learning and reviewing the vocabulary and ideas of this chapter.

The calendar was helpful in organizing my work.

The thinking problems help me develop my thinking skills.

SQ6R (Survey, Question, Read, Reflect, Reread, Record, Recite, Review) is a useful technique to use in studying.

The lab exercises help me develop laboratory skills.

The lab exercises are useful exercises in learning how to present information.

The lab exercises are helpful in learning how to make tables and graphs.

The lab exercises are helpful in learning how to draw conclusions from data.

DOES PROJECT CAPABLE WORK?

HERE'S WHAT PARTICIPATING TEACHERS SAY!

"Project CAPABLE enriched my own reading skills as well as my teaching of reading techniques. I developed a better understanding of the importance and the responsibility of every content teacher to become a teacher of reading. I sharpened my ability to create overviews, advanced organizers, and developed better learning strategies. Although I had always used directed reading lessons, I did them with greater ease and creativity. I became more aware of the need for graphic aids to help comprehension. As I improved my teaching techniques, my students seemed to become more motivated and actually did better."

"The first year was almost like being in college again as we searched the literature to learn all we could about learning skills. My second year was devoted to putting my own skills into creating units for my students. I found this a difficult task at first. After a year of tedious and demanding work, this final year saw us putting some of our units to the test. I quickly found that theory and practice don't always bring the same results. I therefore found I had to revise my units. After using my units for most of the year, I find that I am now better able to put together units of work that are more realistic in theory and practice. I am better able to include skills in my units without taking away from the content. The students who will benefit most from these three years are the students with whom I will have contact with in the future. I feel I have upgraded my own skills as a teacher and will also be able to upgrade the skills of my students."

"As I gained experience in teaching, I became more and more aware that many students lacked the skills needed to learn the content of my course. Some had difficulty reading, some couldn't follow directions well, and many had trouble thinking clearly to solve problems. This was frustrating to both the students and me. In many cases I knew what I wanted to do, but didn't know how to go about doing it. I had so many things that needed to be accomplished with students that I wasn't getting all the content covered. As a result, my attack on some of these skills became somewhat haphazard. Now I have a plan and organization. Through this plan and organization I can address the needs of the students to develop their learning skills."

"As a member of the Project CAPABLE team for the past three years, I have learned a great deal about learning skills. I had never had any courses in reading skills or learning skills during my teacher training. As a result of this project, I have become more aware of the students difficulties in reading and learning. I have been able to help them improve their reading skills, comprehension, and retention of information. I have learned to plan better as we constructed overviews, additional exercises to use with our instruction, pre- and post testing methods, and detailed plans to develop comprehension skills. I feel confident that the units that were developed and taught are more meaningful, are useful for students, and are being retained for further use."

"Three years ago when Project CAPABLE was begun, I knew what areas needed improvement. Now I have laid the foundation work for the project and have learned a great deal first hand as to several new ways to help students learn. The various activities of this project reinforce the basic learning skills and result in a well-developed and worthwhile program. With the use of SQ3R my students have been better prepared to handle daily assignments. In planning classroom activities, I have been able to break up classes into special groups based upon a variety of criteria. I have found a system of recordkeeping that is a great work saver in managing student activities, learning, and testing. I have found the past three years worthwhile and rewarding, as well as stimulating, and would highly recommend teachers to try to enact at least part of the project. After participating in this project, I would like to think of myself as a resource person, willing to come to the assistance of fellow teachers who are trying "to help each student become a more capable learner."

DOES PROJECT CAPABLE WORK?

HERE'S WHAT A STUDENT SURVEY SHOWED!

NEED

As a result of a workshop with the teachers of Madawaska High School, the teachers identified a need for a program that will upgrade student proficiency in basic learning skills.

OBJECTIVE

As a result of Project CAPABLE, 80% of the participating high school students (grades 7-12) will show, from pretesting in September and post-testing in June, a significant (.05) gain in their command of basic learning skills and a significant (.05) increase in their achievement in subject area content as compared to control groups.

EXPERIMENTAL DESIGN

During the first and second years of the project, nine participating teachers from seven different departments developed units designed to improve both the learning of basic learning shills and the learning of content. These units were implemented and their effect evaluated during the third year, the school year of 1981-82.

Participating classes were scheduled by the principal during the summer before the study year with no speical random selection process being used to choose sudents for those classes. Classes were taken as normally scheduled. This scheduling procedure normally includes tracking students somewhat homogeneously according to ability. As a result, control groups and experimental groups were not assumed to be alike with respect to ability at the beginning of the study. In August, the project teachers selected those groups which were to be experimental groups and those which were to be control.

All students were pretested in August. The Following instruments were administered:

1. *Stanford Diagnostic Reading Test (SDRT);*
2. *Maine Assessment and Planning for Schools - Reading (MAPS);*
3. *Watson-Glaser Critical Thinking Appraisal (WGCTA);*
4. *a teacher-designed content test.*

In addition, Differential Aptitude Test (DAT) scores and SRA Achievement Series - Level H scores were obtained from student records. These scores were used to determine if there was any difference in the learning ability between experimental and control groups, and, if there was, use this data for analysis of covariance to represent the covariate.

During the ensuing school year the experimental and control groups received different treatment. The experimental group received all of the project techniques in four selected chapters or units of work, while the control group did not.

In April, alternate forms of the SDRT, MAPS, WGCTA, and teacher-designed content tests were again administered as posttests.

SUMMARY OF ANALYSIS

1. There was little significant difference between control and experimental groups with respect to ability at the beginning of the study.

2. The experimental group scored significantly better on posttests in the areas of literal and inferential comprehension, word meaning, word parts, and skimming and scanning, as indicated by analysis of variance on the posttest means.

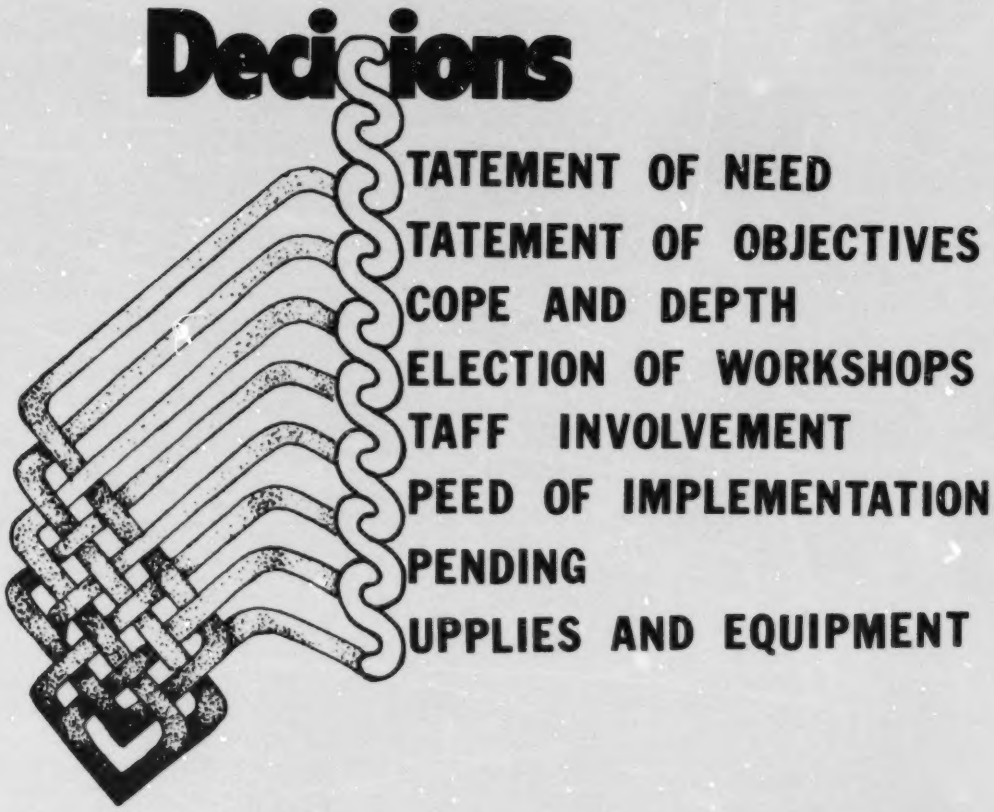
3. The experimental groups scored significantly better on posttests of content area subject matter as indicated by analysis of variance on the posttest means.

4. The t-test indicates that both the experimental and control group scored significantly better in posttests than they did in pretests in the areas mentioned above. The experimental group had a greater gain on posttest over pretest than the control group.

5. Analysis of convariance indicates that the experimental group scored significantly better in the areas mentioned above than did the control group.

CONCLUSION

Students in the experimental group which received Project CAPABLE showed a significant (.05) gain in their command of basic learning skills and a significant (.05) increase in their achievement in subject area content as compared to the control group.



A Plan Implementation Evaluation

Decision: STATEMENT OF NEED

What is the problem?
In what way are students &/or staff deficient?
What are the needs of your students?
What are the needs of your staff?

A statement of need defines the problem. It identifies some deficiency with respect to students and/or staff and prescribes what is needed to remedy the problem. It will describe what behavior changes are needed on the part of students and/or staff. The statement should also describe the process that led to recognizing the problem and identifying the need.

EXAMPLE:

As a result of a workshop with teachers, we have identified a need for a program that will upgrade student proficiency in basic learning skills.

EXAMPLE:

As a result of a workshop with teachers, we have identified a need for a teacher training program that will equip the teachers with skills they need to help students become more proficient in learning skills.

Decision: STATEMENT OF OBJECTIVES

What are you going to do to satisfy your need?
Who will benefit? How many? By when?
In what specific ways do you want them to benefit?
What is the minimal acceptable change?

Your objectives should identify the group that will benefit from the activities, how many individuals will be in the group (see "Staff Involvement"), a description of the activities which will benefit the groups, the change in behavior that is expected, and the minimal acceptable behavior.

EXAMPLE:

As a result of project CAPABLE, 80% of the participating high school students (Grades 9-12) will show, from pretesting in September and posttesting in June, a significant (.05) gain in their command for basic learning skills and a significant increase (.05) in their achievement in subject area content as compared to control groups.

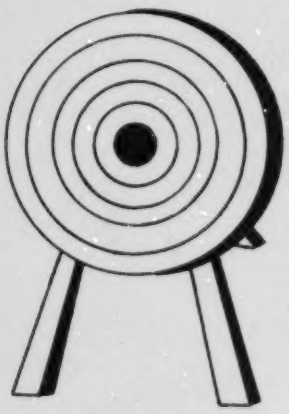
EXAMPLE:

As a result of workshops, searches of the literature, and consultation with experts in the field, each staff member of Project CAPABLE will, by June, have attained a professionally acceptable level of proficiency on the following objectives as determined by performance assessment devices.

After completing a Project CAPABLE training program, a teacher should be able to:

1. describe cognitive development;
2. describe concept development;
3. describe and write a Directed Learning Activity (DLA);
4. develop concept maps;
5. determine chapter goals, objectives and activities;
6. write tests which correspond to chapter goals, objectives, and activities;
7. develop advanced organizers;
8. develop and give Directed Reading Lessons (DRL), Directed Listening Lessons (DLL), and Directed Observing Lessons (DOL);
9. write study guides;
10. develop vocabulary activities;
11. develop critical thinking exercises;
12. use SQ6R;
13. develop and use calendars;
14. develop learning strategies;
15. develop graphic aids exercises;
16. write a course philosophy;
17. determine course goals and objectives.

GET ON TARGET!



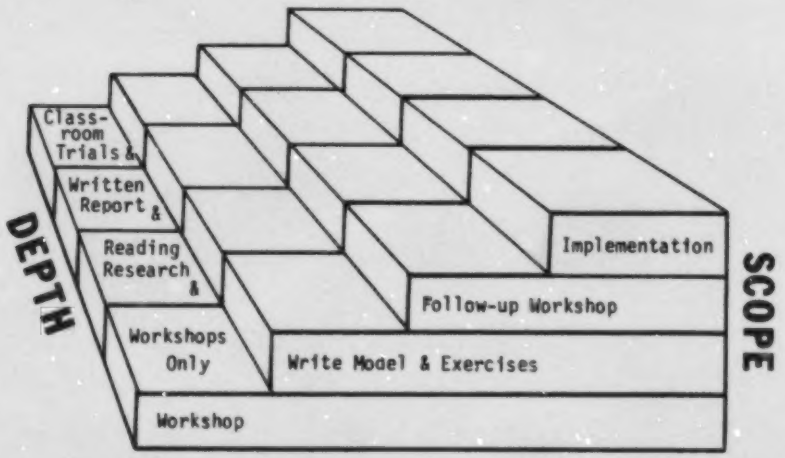
NEEDS AND OBJECTIVES

Decision: SCOPE AND DEPTH

How far toward actual classroom implementation do you want to pursue this project?

Scope & Depth of Workshops

Selected a workshop format that will suit your needs and allow you to achieve your objectives. Implementation of the project can occur at 4 levels: 1) Training Workshop, 2) Writing Lab, 3) Follow-up Workshop, and 4) Full Implementation in the Classroom. The depth of training can also occur at 4 levels: 1) workshops, 2) reading research, 3) written report, and 4) classroom trials.



Decision: SELECTION OF WORKSHOPS

What workshops will be required for you to implement the Classroom Action Program according to your needs and objectives?

SELECT WORKSHOPS THAT WILL MEET YOUR NEEDS AND OBJECTIVES

Basic Learning Skills
Cognitive Development
Comprehension
Concept Development
Vocabulary
Critical Thinking
Classroom Management
Classroom Action Program
Directed Learning Activity
Teacher Preparation
Concept Maps, Structural Overviews, Advanced Organizers
Interest and Motivation
Directed Reading Lesson
SQ6R
Study Skills
- Books & Library Skills
- Rate of Study
- Evaluate the Source
- Graphic Aids
- Organize & Summarize
- Listening Skills
- Follow Directions
- Retention
- Use of Time

Study Guides
Learning Styles
Skills Evaluation, Monitoring Student Progress

*(See chapter in this manual on "workshops").

Decision: STAFF INVOLVEMENT

How many staff members will be involved in this project?

Depending upon your needs and objectives, you may wish to involve a single teacher, a small group of highly motivated teachers, a small core group from several departments, or an entire staff in your project.

Decision: SPEED OF IMPLEMENTATION

How long do you want to spend on the project?

As an inservice program, we suggest a year for each topic. Select the workshops* that will best meet your needs and objectives.

Basic Learing Skills
Cognitive Development
Comprehension
Concept Development
Vocabulary
Critical Thinking
Classroom Management
Classroom Action Program
Directed Learning Activity
Teacher Preparation
Concept Maps, Structural Overviews, Advanced Organizers
Interest and Motivation
Directed Reading Lesson
SQ6R

Study Skills
- Book & Library Skills
- Rate of Study
- Evaluate the Source
- Graphic Aids
- Organize & Summarize
- Listening Skills
- Follow Directions
- Retention
- Use of Time

Study Guides
Learning Styles
Skill Evaluation, Monitoring Student Progress

*See section on "Workshops"

Decision: SPENDING

How much money do you have to spend?

In these times of tight budgets, money for implementing new programs is a major consideration. Few, if any, schools will be able to attack this project as we have, with Title IV-C funding.

The philosophy of your community and school, and your own personal philosophy require you to set priorities for the most effective use of the educational dollar. You have to decide how important this project is, give it the appropriate priority, then use imagination and persistence to find funding.

Getting experts for workshops will cost money. Any release time for teachers will have some expense. Requiring extra work from teachers may call for a stipend. The speed at which you wish to implement the project is another factor.

In the section of this manual entitled, "A Plan", several considerations are offered and possible options are presented, to help you decide how to appropriate funds.

Decision: SUPPLIES AND EQUIPMENT

What supplies, equipment, & facilities do we need?

I. Program materials

1. resource library

II. Equipment

1. typewriter
2. duplicating facilities
3. file cabinets

III. Facilities

1. workroom

All of these are readily available in most schools.

A Plan

Based upon these four administrative decisions, four possible options are suggested:

Option 1: Provide the instructional workshops only. Teachers who are interested can implement the learning skill activities on their own, depending on their own needs, time, and abilities.

Option 2: Provide an Instructional Workshop with a Writing Lab to begin Model Units incorporating the learning skill activities.

Option 3: Provide a Follow-up Workshop in addition to the Instructional Workshop & Writing Lab to address problems and refine the model units.

Option 4: Provide a structure within the school which will facilitate the writing and implementation of units in the classroom. This option would be the most time-consuming for the teachers. There should be someone to direct this level of project implementation. Teachers should receive some kind of compensation and incentive in the form of a stipend and recertification credit, and a clerical aide should be provided.

Option 4a might be chosen if there is a group of highly motivated teachers in the school. This option would provide for a part-time director, a part-time clerical aide, but no teacher stipend or in-school work time.

Option 4b would be appropriate if a small core group of perhaps 7 teachers would be trained in each of several departments over a period of ten years. This option provides for a director, clerical aide, and a stipend for each teacher.

Option 4c provides for in-school work time for a core group to implement the project in three years instead of seven.

Option 4d would be for training the entire staff (perhaps 40) over a period of ten years and implementing the project in every classroom.

Option 5: An option that has yet to be developed to provide the teacher with ready-made materials and manuals for their implementation.

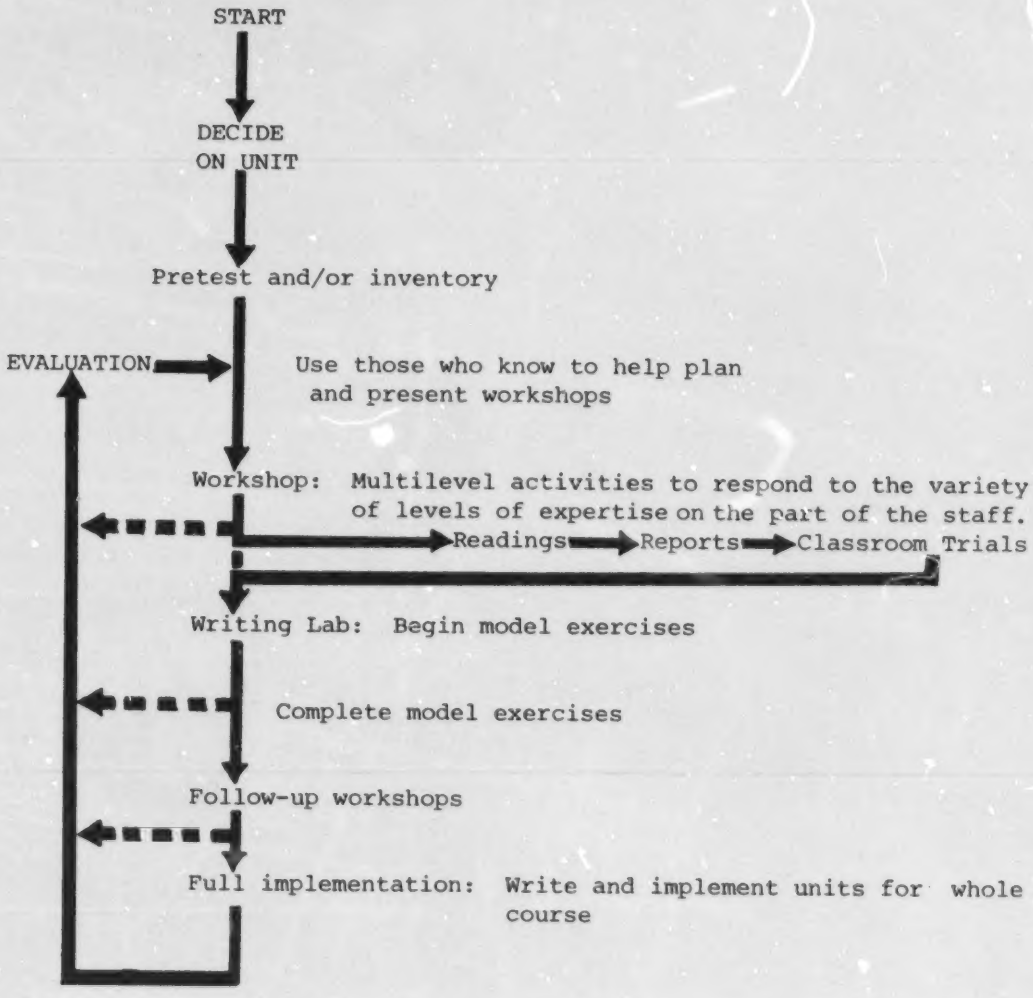
E. Replication Costs

Detail the cost of replicating your program. Include costs of training, materials and other start up costs. Assume staff and facilities will be pre-existing in the replication site.

	OPTIONS *(see page 11; C. Staffing and Training Requirements)*						
	1 Instructional Workshop	2 Working Lab	3 Follow-up Workshop	4 Develop and implement classroom units			
				a	b	c	d
1. Salaries							
a. Professional							
1. director				$ 1,000	$ 2,000	$ 4,000	$20,000
2. teacher compensation & incentive							
a. stipend					7,000	7,000	40,000
b. in-school worktime						15,000	
c. recertification credit							
b. Non-professional							
1. clerical aide				1,000	5,000	10,000	10,000
c. Workshops	$ 500	$ 1,000	$ 1,500	1,500	1,500	4,000	1,500
2. Contracted Services							
3. Materials & supplies					1,000	7,000	3,500
4. Travel							
5. Equipment							
6. Other							
Total annual cost	$ 500	$ 1,000	$ 1,500	$ 3,500	$16,500	$47,000	$75,000

Implementation

Use the Classroom Action Program to plan and present workshops.


START
DECIDE ON UNIT
Pretest and/or inventory
EVALUATION
Use those who know to help plan and present workshops
Workshop: Multilevel activities to respond to the variety of levels of expertise on the part of the staff.
Readings
Reports
Classroom Trials
Writing Lab: Begin model exercises
Complete model exercises
Follow-up workshops
Full implementation: Write and implement units for whole course

Evaluation

HAVE YOU ACCOMPLISHED YOUR GOALS?

Teacher/Student Surveys

One useful kind of evaluation is to ask participating teachers and students what they think of various elements of the Classroom Action Program after they have experienced their implementation.

Pre & Post Testing

Carefully written pre & post tests can be written to determine if there is any change in proficiency in basic learning skills and in the learning of content. To determine if the change is due to the program or if the same change would have occurred without the program, a control group should be used and tested. Several experimental designs are possible depending upon your program, how the evaluation will be used, and the degree of validity demanded by that use.

WORKSHOPS

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Comprehension ---------- 2B
Concept Development ---------- 3A
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Classroom Management ---------- 5A
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Directed Learning Activity ---------- 5C
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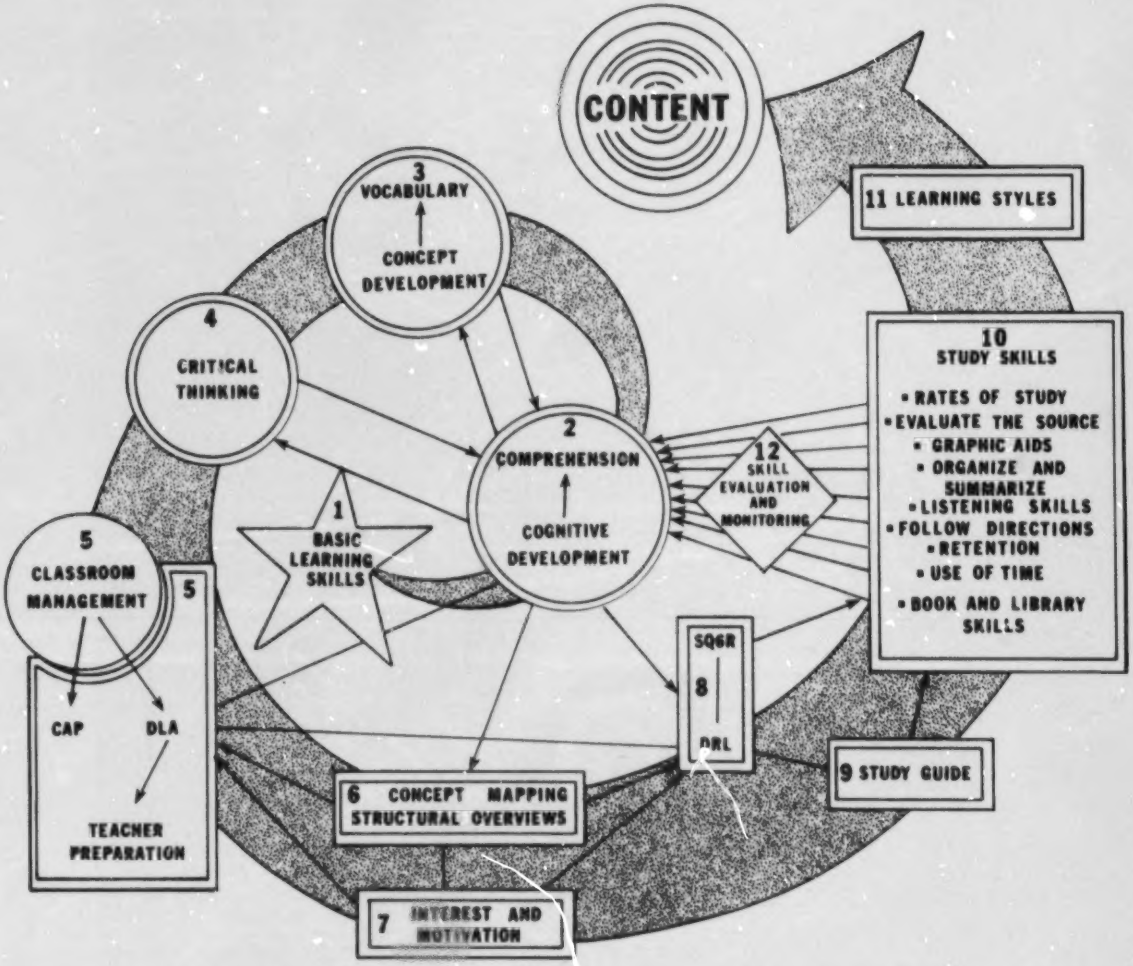
Concept Maps, Structural Overviews, Advanced Organizers ---------- 6
Interest and Motivation ---------- 7
Directed Reading Lesson ---------- 8A
SQ6R ---------- 8B
Study Skills ---------- 9A
- Book & Library Skills ---------- 9B
- Rate of Study ---------- 9C
- Evaluate the Source ---------- 9D
- Graphic Aids ---------- 9E
- Organize & Summarize ---------- 9F
- Listening Skills ---------- 9G
- Follow Directions ---------- 9H
- Retention ---------- 9I
- Use of Time ---------- 9J

Study Guides ---------- 10
Learning Styles ---------- 11
Skill Evaluation, Monitoring Student Progress ---------- 12



Basic learning skills(1) are the central focus of improving the learning of content(12) in the classroom. Cognitive development and comprehension(2), Concept & vocabulary development(3), critical thinking(4), and classroom management(5) are fundamental topics which provide the basis for the acquisition of basic learning skills needed by students. Teacher Preparation(5) translates these fundamentals into actual classroom learning activities of a Classroom Action Program(5). These activities are Directed Learning Activity(5), concept mapping & structured overviews(6), interest & motivation(7), Directed reading lesson & SQ6R(8), study guides(9), study skills(10), and learning styles(11).

WORKSHOP 1

BASIC LEARNING SKILLS

Description

The purpose of Project CAPABLE is "to help each student become a more capable learner." We propose to achieve this by being aware of the basic learning skills possessed by each learner. The learner must have the basic learning skills required to learn content. If these skills are inadequate his learning will be ineffective. The job of the classroom teacher is to use the skills the student already knows to help him learn content and to use content to increase the student's proficiency in learning skills.

To begin this task, the basic learning skills needed to learn each kind of subject must be identified. Once this is done attention can be focused on determining how proficient each student is in each skill and provide exercises suited to that student.

Objectives

Upon completion of the workshop(s) on basic learning skills, each participating teacher will be able to:

-- Prepare at least a tentative list of those basic learning skills students need to be successful in his course(s).

WORKSHOP 2A

COGNITIVE DEVELOPMENT

Description

Learning requires an interior cognitive structure to process and assimilate new information. It is a structural process that each child begins building from infancy. The building of this cognitive structure proceeds in an invarient order of stages. Piaget divides these stages into 1) Sensory motor, 2) Pre-operation, 3) Period of Concrete Operations, and 4) Formal Operations. We often ask our students to perform activities at the stage of formal operations. We need to know what these formal operations are, how they work, which exercises we assign require formal operations, and which students have achieved the formal operations and which ones have not.

Much learning takes place through the formal thought structure. If we are to help students use this thought structure, we need to know the current theory of how it works.

Objectives

Upon completion of the workshop(s) on cognitive development, each participating teacher will be able to:

-- describe the stages of cognitive development;

-- describe the consequences of cognitive development in the classroom ;

-- describe how the cognitive structure works ;

-- describe the consequences of such cognitive structure to classroom learning.

WORKSHOP 2B

COMPREHENSION

Description

The purpose of Project CAPABLE is "to help each student become a more capable learner." Central to this goal is comprehension. The purpose of the comprehension workshop is to investigate comprehension as it relates to learning, cognitive development and structure, the learning environment, questioning and comprehension activities. All of these are intimately interrelated and as a result cannot be separated from each other.

Objectives

Upon completion of the workshop(s) on comprehension, each participating teacher will be able to:

-- list and describe the levels of comprehension;
-- describe techniques that will help students increase their comprehension;
-- write activities and exercises that will help students increase their comprehension.

WORKSHOP 3A

CONCEPT DEVELOPMENT

Description

Vocabulary development is a cognitive process and the meaning of a word is a concept. We can describe a characteristic pattern of concept development in which an individual uses his cognitive structure to give meaning to a word and evolve new meanings and nuances. It is important to know how words take on meanings and concepts are developed if we are to help students become better learners.

Objectives

Upon completion of the workshop(s) on concept development, each participating teacher should be able to:

-- describe the stages of concept development;

-- write activities and exercises that use the stages of concept development to develop concepts.

WORKSHOP 3B

VOCABULARY

Description

Central to learning is vocabulary development. It is through vocabulary that we think and communicate. It is the medium through which ideas are passed from one individual to another. The teacher must use his knowledge of cognitive structure and processes and of concept development to design exercises and activities that will help students develop vocabulary. There are a number of techniques that are effective, such as, context clues and structural analysis that will help students with word meaning. Games and puzzles help students become more familiar with new words. Concept development gives depth of meaning to a word.

Objectives

Upon completion of the workshop(s) on vocabulary, each participating teacher should be able to:

-- write exercises and activities to help students with their vocabulary.

WORKSHOP 4

CRITICAL THINKING

Description

Improved critical thinking skills are not only important to comprehension but are also central to problem solving. Critical thinking is one of the most important skills we have to teach. We must develop activities and exercises that will improve students ability at the higher levels of thinking.

Objectives

Upon completion of the workshop(s) on critical thinking, each participating teacher will be able to:

-- describe how critical thinking skills are learned;

-- write activities and exercises that will improve students critical thinking skills.

WORKSHOP 5A

CLASSROOM MANAGEMENT

Description

The Classroom Action Program is one approach to classroom management. Other management techniques can be used in conjunction with this program, such as, mastery learning, criterion referenced education, various grouping techniques, an assortment of supplemental activities, and others.

Objectives

Upon completion of the workshop(s) on classroom management, each participating teacher will be able to:

-- describe various classroom management techniques that can be used to help students learn.

WORKSHOP 5B

CLASSROOM ACTION PROGRAM

Description

The Classroom Action Program is a plan for coordinating all of the factors of the classroom learning environment in a way that will foster the development of basic learning skills while teaching content. The backbone of the Classroom Action Program is the Directed Learning Activity. It provides the framework upon which the activities of Project CAPABLE can be placed.

Objectives

Upon completion of the workshop(s) on the Classroom Action Program, each participating teacher should be able to:

-- describe why a Classroom Action Program is necessary;

-- list and describe the parts of the Classroom Action Program.

WORKSHOP 5C

DIRECTED LEARNING ACTIVITY

Description

The Directed Learning Activity is the framework upon which Project CAPABLE is built. Onto this framework will be set all of the activities which will help students master learning skills while learning content.

Objectives

Upon completion of the workshop(s) on Directed Learning Activity, each participating teacher should be able to:

-- list, describe, and give the importance of each step of the Directed Learning Activity.

WORKSHOP 5D

TEACHER PREPARATION OF DLA

Description

Project CAPABLE requires extensive teacher preparation. Several steps of teacher preparation are suggested:

A. Course Philosophy

B. Course Goals and Objectives

C. Chapter Analysis

D. Concept Map

E. Chapter Goals and Objectives

F. Test

G. Learning Strategy

H. Write and/or Select Exercises

Objectives

Upon completion of the workshop(s) on teacher preparation, each participating teacher should be able to:

-- list, describe, and give the importance of each step of the teacher preparation phase of the DLA;

-- perform steps A, B, C, E, and F of the teacher preparation phase of the DLA for one chapter;

-- implement steps A, B, C, E, and F of teacher preparation phase for all chapter.

WORKSHOP 6

CONCEPT MAPPING, STRUCTURAL OVERVIEWS

Description

Concept Maps are diagrams that show the interrelationships between all the major and minor concepts or ideas in the chapter. A concept map helps the teacher analyze the chapter and make decisions on the best ways to help students learn. The concept map will show which ideas are dependent upon other ideas. This will indicate the relative importance of the ideas and the order in which they ought to be studied.

Structural Overviews are diagrams which show the essential ideas of a concept and their relationship to each other. These are provided to students to help them organize their thinking before, during and after their study. They help students see the chapter or concept as a whole.

Advanced Organizers are any activity or exercise that helps students organize.

Objectives

Upon completion of the workshop(s) on concept mapping, structural overview, and advanced organizers, each participating teacher should be able to:

-- write concept maps to show the relationship between ideas in a chapter;
-- write structural overviews that will help students organize their study and learning;
-- write advanced organizers that will help students organize their study and learning.

WORKSHOP 7

INTEREST AND MOTIVATION

Description

An important part of Student Preparation phase of the Directed Learning Activity is interest and motivation. There are several techniques that can be used by the teacher to stimulate student interest and motivate them for learning during each chapter and for each lesson.

Objectives

Upon completion of the workshop(s) on Interest & Motivation, each participating teacher should be able to:

-- describe several techniques that will enhance interest and motivation on the part of the students;

-- apply interest and motivation techniques during the student preparation phase of the DLA or DRL.

WORKSHOP 8A

DIRECTED READING LESSON

Description

The ultimate goal is that each student become an independent learner and thereby equipped for a lifetime of learning. Traditionally, many content area teachers have used and still use a "sink or swim" approach. They view any special help from the teacher as only increasing the students dependence on them. The unhappy result is that many students are left to "sink" who might very well have learned to "swim".

Asking students to perform activities at which they cannot succeed can only frustrate and demean the student. The goal of instruction should be to help the student by removing as many barriers as possible and facilitate the path of learning for maximum efficiency. At the same time, the goal should be to make the learner independent and self sufficient.

Objectives

Upon completion of the workshop(s) on Directed Reading Lesson, each participating teacher should be able to:

-- write and implement Directed Reading Lessons whenever they give reading assignments.

WORKSHOP 8B

SQ6R

Description

SQ6R is a strategy that will help students become independent learners. While they are learning this technique, students need teacher directed strategy of the Directed Reading Lesson.

Objectives

Upon completion of the workshop(s) on SQ6R, each participating teacher should be able to:

-- describe the steps of SQ6R;

-- implement SQ6R in the classroom.

WORKSHOP 9A

STUDY SKILLS

Description

Study skills are tools for getting information from the environment. When a student has acquired study skills he has trained his senses to pick out relevant information from his environment. These skills facilitate exploration and will produce organized knowledge. The organization of knowledge through study skills will greatly facilitate the formal thought processes. The study skills directly involve the formal thought pathways and decision making, thereby enhancing the students' ability in critical thinking.

Study skills have a direct relationship to the cognitive process. If each student is to become a capable and efficient learner, we must see to it that he learns these skills:

I. Obtaining information
   A. Use of text
      -table of contents
      -index
      -appendix
      -glossary
      -bibliographies
   B. Library
      -Card Catalog
      -Readers Guide
      -Almanacs
      -Encyclopedias
      -Vertical File

II. Rates of Comprehension
   skim
   skan

III. Evaluate the source
   Paragraphs
      -topic sentence
      -supporting detail
      -main idea
   Types of Paragraphs
   Authors Purpose

IV. Graphic Aids
   graphs
   charts
   tables
   diagrams
   cartoons

V. Organize & Summarize
   notetaking
   outlining
   summarizing
   concept mapping

VI. Retaining what has been learned
VII. Following Directions
VIII. Listening Skills
IX. Use of Time

Objectives

Upon completion of the workshop(s) on Study Skills, each participating teacher should be able to:

-- list and describe the categories of study skills.

WORKSHOP 9B

BOOK AND LIBRARY SKILLS

Description

Once the student decides, for one reason or another, that he wants to know more about a particular question or problem, he must obtain that information from a textbook and/or library.

Objectives

Upon completion of the workshop(s) on Textbook & Library Skills, each participating teacher should be able to:

-- write exercises and activities that will help students learn textbook and library skills.

WORKSHOP 9C

RATES OF STUDY

Description

A student will use various rates of reading and comprehension to get the information he wants. He will scan the resource to see if it has the information he needs, sim to determine the organization of the knowledge, and then apply a variety of rates of study to get the information he needs.

Objectives

Upon completion of the workshop(s) on rates of study, each participating teacher should be able to:

-- write activities and exercises that will help students choose appropriate rates of study.

WORKSHOP 7D

EVALUATED THE SOURCE

Description

Once a student has found the information he wants, he will have to evaluate the source to take the next step toward learning the answer to his question or problem. The student must determine the author's purpose and be able to recognize different kinds of paragraphs, main ideas, and supporting detail.

Objectives

Upon completion of the workshop(s) on evaluate the source, each participating teacher should be able to:

-- write activities and exercises that will help students evaluate the material they read.

WORKSHOP 9E

GRAPHIC AIDS

Description

Along with relevant information gleaned from written material, discussion, lecture, and observations, will be data presented in Graphic Aids. These are maps, graphs, charts, tables, diagrams, and cartoons involving scales, legends, symbols, and keys.

Objectives

Upon completion of the workshop(s) on Graphic Aids, each participating teacher should be able to:

-- write activities and exercises that will help students read, interpret, and make graphic aids.

WORKSHOP 9F

ORGANIZE AND SUMMARIZE

Description

When the student has a good understanding of the information, he must be able to organize and summarize it using skills of notetaking, outlining, summarizing or concept mapping.

Objectives

Upon completion of the workshop(s) on organizing and summarizing, each participating teacher should be able to:

-- write activities and exercises that will help students develop skills of notetaking, outlining, summarizing and concept mapping.

WORKSHOP 9G

LISTENING SKILLS

Description

Emphasis is now placed on reading skills and reading comprehension. Listening skills and listening comprehension are also very important. Our students, and people in general, are often criticized for deficiencies in this area. Listening skills are of prime importance in class during lectures, discussions, and other activities during which information is conveyed verbally.

Objectives

Upon completion of the workshop(s) on listening skills, each participating teacher should be able to:

-- write activities and exercises that will help students develop their thinking skills.

WORKSHOP 9H

FOLLOW DIRECTIONS

Description

Following directions is a skill that is constantly being called on in the classroom. Students need careful training to perform properly and directions must be clear and unambiguous. While following directions is sometimes listed as a subskill of organizing and summarizing, and may also be described as a special kind of comprehension, it seems important enough and different enough in character to be considered as a skill by itself.

Objectives

Upon completion of the workshop(s) on Following Directions, each participating teacher should be able to:

-- write activities and exercises that will help students learn to follow directions of increasing complexity.

WORKSHOP 9

RETENTION

Description

Long term retention will be achieved when the information has been accomodated and assimilated so that it is integrated with the learner's store of knowledge. The skills of the SQ6R technique facilitate this process: Survey, Question, Read, Reflect, Record, Recite, Review.

Objectives

Upon completion of the workshop(s) on Retention skills, each participating teacher should be able to:

-- write activities and exercises that will help students learr retention skills through the use of SQ6R.

WORKSHOP 9j

USE OF TIME

Description

Many students have difficulty in school because they have trouble managing their time. This is a skill that has to be learned. Right now we are letting experience, trial and error, and failure do the teaching. There is alot that can be done in the classroom to help students learn how to manage time.

Objectives

Upon completion of the workshop(s) on Use of Time, each participating teacher should be able to:

-- write activities and exercises that will help students use their time more effectively.

WORKSHOP 10

STUDY GUIDE

Description

Study guides are exercises that accompany a study or reading assignment to help the students successfully complete the assignment. It carefully directs the students in the application of a myriad of basic learning skills to facilitate the learning of content. At the same time, instruction and practice can be given so that the content serves as the vehicle for improving basic learning skills. Through the use of study guides, the teacher can be assured that students have successfully completed the activity and are ready for the classroom.

Objectives

Upon completion of the workshop(s) on Study Guides, each participating teacher should be able to:

-- write study guides that will help students successfully complete assignments.

WORKSHOP 11

LEARNING STYLES

Description

Each student is an individual. Each student has his own way of thinking and learning. If we are to effectively help students become better learners we have to be aware of individual learning styles and adopt our methods to the individual.

Objectives

Upon completion of the workshop(s) on Learning Styles, each participating teacher should be able to:

-- write activities and exercises that will take into account the various learning styles students have.

WORKSHOP 12

SKILL EVALUATION, MONITOR STUDENT PROGRESS

Description

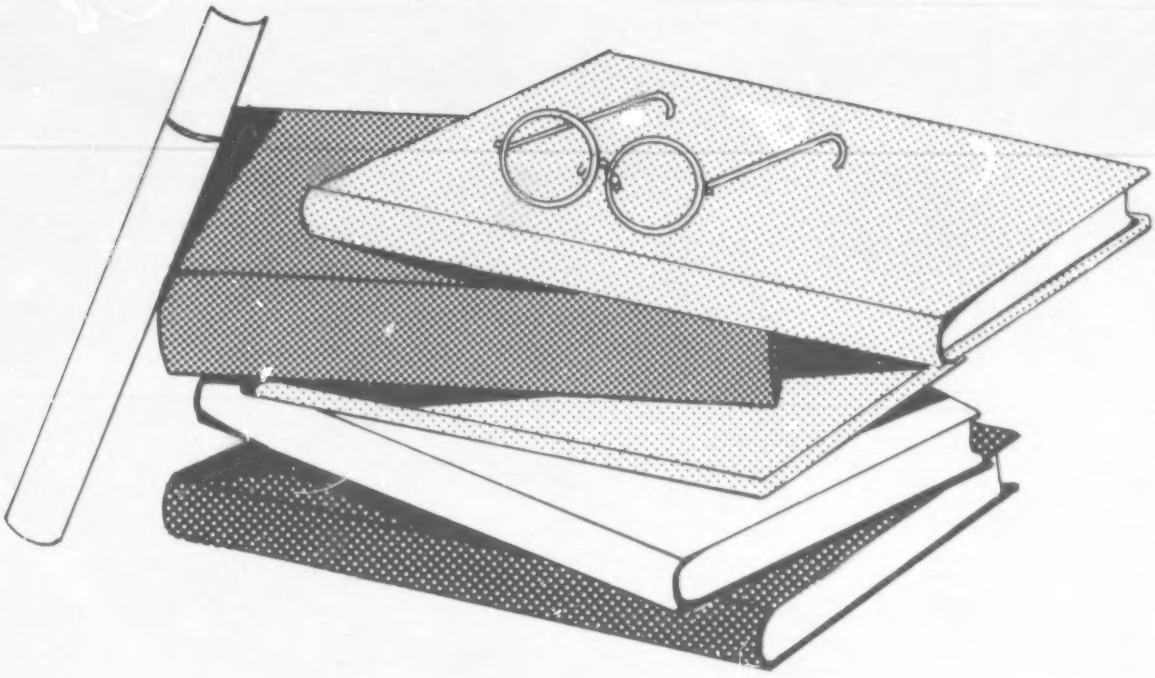
If we are to help students improve their learning skills, we must have a system to evaluate their skill level at the beginning of the course, and to monitor their skill level and progress throughout the year. We need a method that works easily and does not require alot of bookkeeping.

Objectives

Upon completion of the workshop(s) on Skill Evaluation, Monitoring Student Progress, each participating teacher should be able to:

-- develop and use a system of evaluation and record keeping that will determine each students level of skill proficiency and monitor progress throughout the course.

READING LIST



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